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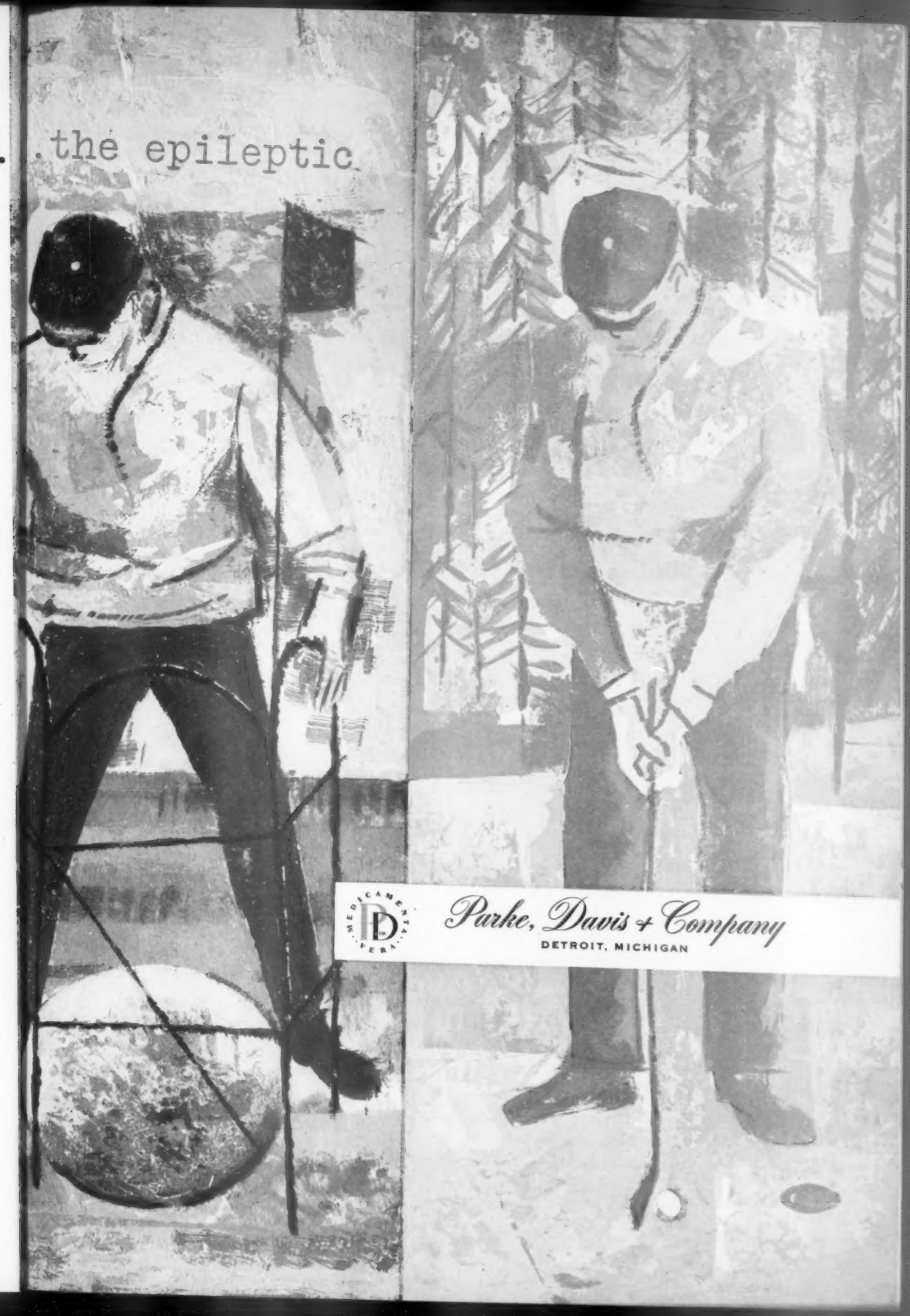
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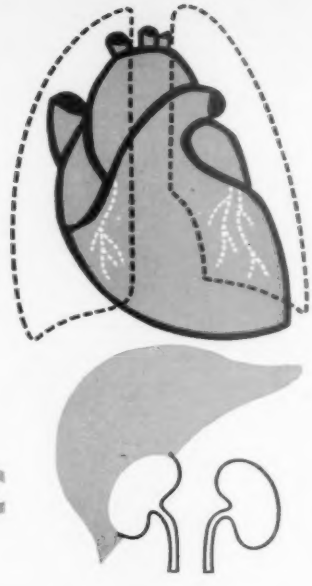

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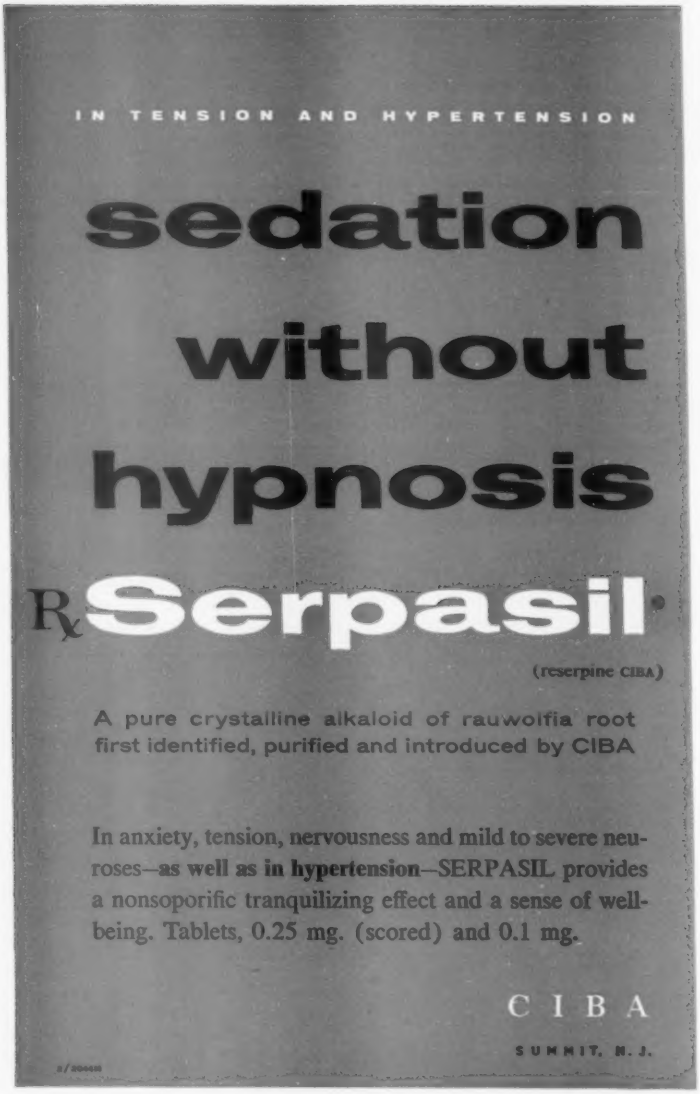

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Fracture and Orthopedic Committee: John C. Wolgamot, Great Falls, Chairman; L. Clayton Allard, Billings; H. M. Clemmons, Butte; John K. Colman, Butte; Walter H. Hagen, Billings; Charles F. Honeycutt, Missoula; Stephen L. Odgers, Missoula; Thomas C. Power, Great Falls; Paul R. Ensign, Helena, Ex-officio.

Rural Health Committee: B. C. Farrand, Jordan, Chairman; M. O. Anderson, Hardin; Raymond G. Johnson, Harlowton; Ronald E. Losee, Ennis; H. A. Stanchfield, Dillon; Walter G. Tanglin, Polson; Francis L. Van Veen, St. Ignatius; George D. Waller, Jr., Cut Bank; Joseph J. Wier, Big Sandy; L. S. McLean, Helena, Ex-officio.

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Rocky Mountain Medical Conference Committee: H. M. Blegen, Missoula, Chairman, 1955; Albert W. Axley, Havre, 1958; Charles B. Craft, Bozeman, 1956; M. A. Gold, Butte, 1957; T. W. Saam, Butte, 1959; J. J. Malee, Anaconda, Ex-officio; T. R. Vye, Billings, Ex-officio.

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Hospital Relations Committee: Walter B. Cox, Missoula, Chairman; Robert B. Beans, Great Falls; Mary E. Martin, Billings; John A. Newman, Butte; D. Davis Parke, Bozeman; Frank M. Petkevich, Great Falls.

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Emergency Medical Service Committee: George E. Trobough, Anaconda, Chairman; Charles P. Brooke, Missoula; Harry V. Gibson, Great Falls; B. A. Lucking, Helena; Francis I. Sabo, Bozeman; W. Bruce Talbot, Butte; G. D. Carlyle Thompson, Helena, Ex-officio.

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Committee on Highway Safety: Thomas L. Hawkins, Helena, Chairman; James M. Flinn, Helena; Raymond O. Lewis, Helena; Amos R. Little, Jr., Helena; James D. Morrison, Billings.

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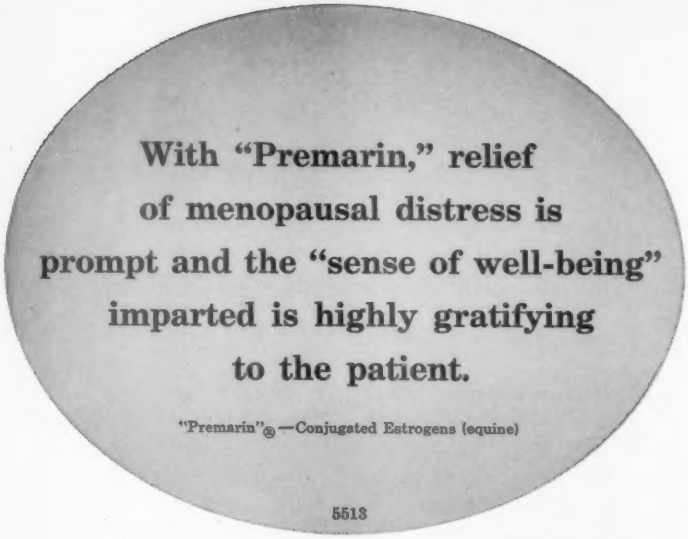

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Councilors (three years): R. C. Derbyshire, Santa Fe, 1956; C. H. Gellenthien, Valmora, 1956; W. E. Badger, Hobbs, 1957; W. D. Dabbs, Clovis, 1957; W. O. Connor, Jr., Albuquerque, 1958; J. C. Sedgwick, Las Cruces, 1958.

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Councilor, Central Utah Medical Society: John B. Cluff, Richfield.

Councilor, Salt Lake County Medical Society: James F. Orme, Salt Lake City.

Councilor, Southern Utah Medical Society: R. G. Williams, Cedar City.

Councilor, Uintah Basin Medical Society: T. R. Seager, Vernal.

Councilor, Utah County Medical Society: R. E. Jorgenson, Provo.

Councilor, Weber County Medical Society: Rich Johnston, Ogden.

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Alternate Delegate to A.M.A., 1954-55: C. Eliot Snow, Salt Lake City.

Editor of the Utah Section of the Rocky Mountain Medical Journal: R. P. Middleton, Salt Lake City.

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Committee on Fractures: A. M. Okelberry, Chairman, Salt Lake City; Russell N. Hirst, Ogden; John M. Bowen, Provo.

Cancer Committee: John H. Carlquist, Chairman, Salt Lake City; Richard Call, Provo; Leland K. Dayton, Dragerton; James McMurrin, Ogden; H. M. Jackson, Salt Lake City.

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Committee on Utah Health Council: K. B. Castleton, Chairman, Salt Lake City; N. F. Hicken, Salt Lake City; Paul Clayton, Salt Lake City; Q. B. Coray, Salt Lake City; Howard K. Beinap, Ogden; Thomas H. Hall, Payson.

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Committee on Insurance Plans: Clair Hayward, Chairman, Logan; John Z. Brown, Jr., Salt Lake City; Robert G. Snow, Salt Lake City; F. W. Clausen, Salt Lake City; John H. Clark, Salt Lake City; Reynolds F. Cahoon, Salt Lake City.

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Necrology Committee: James K. Palmer, Salt Lake City; L. A. Stevenson, Chairman, Salt Lake City.

Rheumatic Fever Committee: L. G. Veasey, Chairman, Salt Lake City; Geo. Spendlove, Salt Lake City; Wm. R. Young, Salt Lake City; Joan Critchlow, Salt Lake City; Homer Rich, Ogden; Don C. Merrill, Provo; John Wright, Price; Ralph N. Barlow, Logan.

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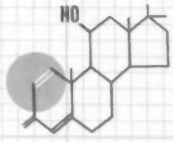

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2. Waine, H.: Bull. Rheumat. Dis. *5*:81, 1955.
3. Tolksdorf, S., and Perlman, P.: Fed. Proc. *14*:377, 1955.
4. Herzog, H. L., and others: Science *121*:176, 1955.
5. Dordick, J. R., and Gluck, E. J.: J.A.M.A. *158*:166, 1955.

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Maternal Welfare: O. J. Rojo, Chairman, Sheridan; L. D. Kattenhorn, Powell; L. H. Wilmoth, Lander; Clark Young, Casper; G. W. Koford, Cheyenne; W. M. Franz, Newcastle.

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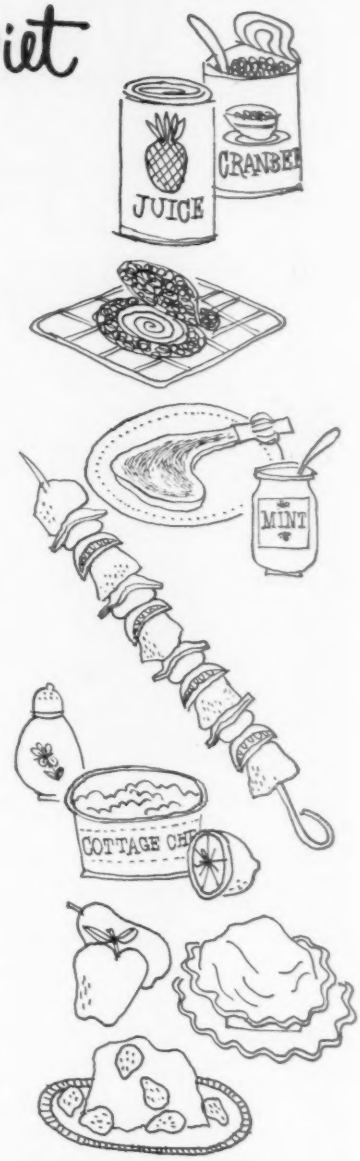
"Taste Appeal" for the Low-Fat Low-Cholesterol Diet



Palatability is the key to planning this diet. And these flavor tips will help you keep in the "taste appeal" your patient must have and still keep out the rich foods he cannot have.

These are for flavor—

Cranberry and tomato sauce pinch-hit for gravy. Fruit juices are to baste with as well as to drink. And herbs and spices lend a fine aroma to meats and vegetables.

Here's where they go—

Meat loaf can sport a gay cap of whole-cranberry sauce, while hamburgers make a surprise party when a slice of pickle or onion is sealed between two thin patties. Your patient can baste chicken with lemon or orange juice—glaze lamb chops with mint jelly. Lean meats, broiled or baked, are made savory with herbs. And barbecued kabobs add something different.

Most vegetables can be dressed simply with lemon juice or an herb vinegar. And tomato halves come out from under the broiler bubbly with brown sugar and sweet basil on top.

On green salads, cottage cheese thinned with lemon juice, sparked with paprika, makes the dressing. And on fruits, try lemon juice, honey and chopped mint.

For dessert, angel cake or meringue shells go nicely under fruits—skim milk powder makes the "whipped cream." Snow pudding is a simple dessert—fresh fruit, even more so. And for a change, your patient may like his fruit baked in grape or cranberry juice.

The diet, of course, will be balanced nutritionally at a suitable calorie level. And these "diet do's" will help keep your patient happy within the limits you set for his diet.

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Fat—0; Calories 104/8 oz. glass (AVERAGE OF AMERICAN BEERS)

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DOCTOR, here's a question and an answer you may find useful when patients ask about cigarettes:

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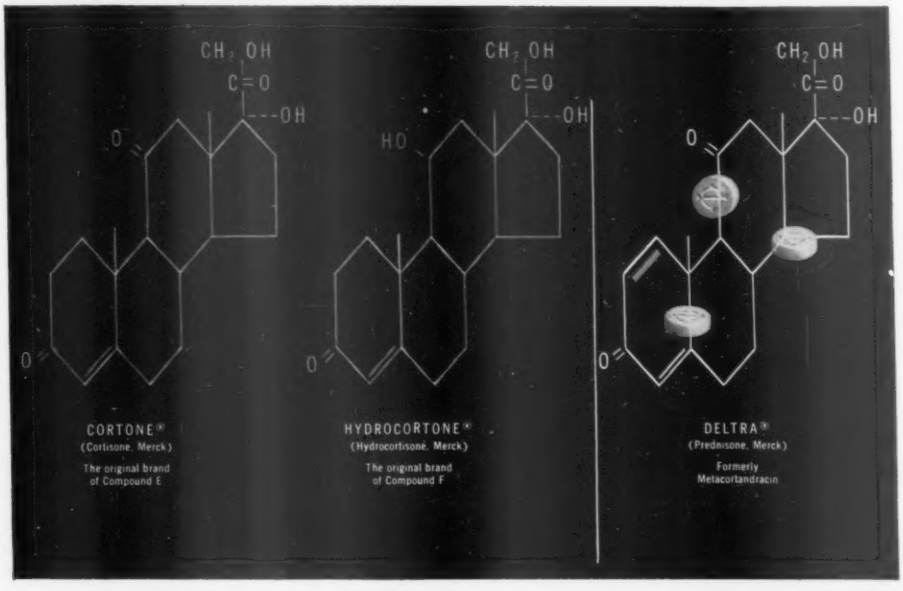

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SUPPLIED: DELTRA is supplied as 5 mg. tablets (scored) in bottles of 30.

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Meat...

and the Problem of Senile Osteoporosis

Perhaps under the still-persisting influence of the mistaken "health legends" of former days, many older people tend to eat less meat and other nutritionally valuable protein foods than they should; thus, the osteoporosis that occurs naturally in the aging body may be unduly augmented.[1]

A balanced diet supplying optimal amounts of protein is essential, and appears to be useful in preventing and in slowing the progress of osteoporosis in senile persons. Adequate protein intake is instrumental in supporting osteoblastic activity so necessary for production of osseous matrix. "When osteoporosis is present, the prime objective is an adequate, high protein diet (a gram or more [of protein] per kilogram of body weight), to aid in building bony matrix for osteoblastic activity."[1]

Meat constitutes one of the most important sources of protein in the nutrition of the aged. Meat offers biologically effective protein—effective in the maintenance as well as the reconstruction of wasted or damaged tissue. Its natural content of B vitamins and of essential minerals not only helps to supply the daily needs for these nutrients, but is necessary for the proper utilization of amino acids.[2]

The appealing taste of meat, its appetite-stimulating quality, and its almost complete digestibility also are important in geriatric nutrition.

---

1. Rechtman, A. M., and Yarrow, M. W.: Osteoporosis, Am. Pract. & Digest Treat. *5*:691 (Sept.) 1954.
2. Cannon, P. R.; Frazier, L. E., and Hughes, R. H.: Factors Influencing Amino Acid Utilization in Tissue Protein Synthesis, in Symposium on Protein Metabolism, New York, The National Vitamin Foundation, Inc., 1954, pp. 55-90.

The nutritional statements made in this advertisement have been reviewed and found consistent with current medical opinion by the Council on Foods and Nutrition of the American Medical Association.

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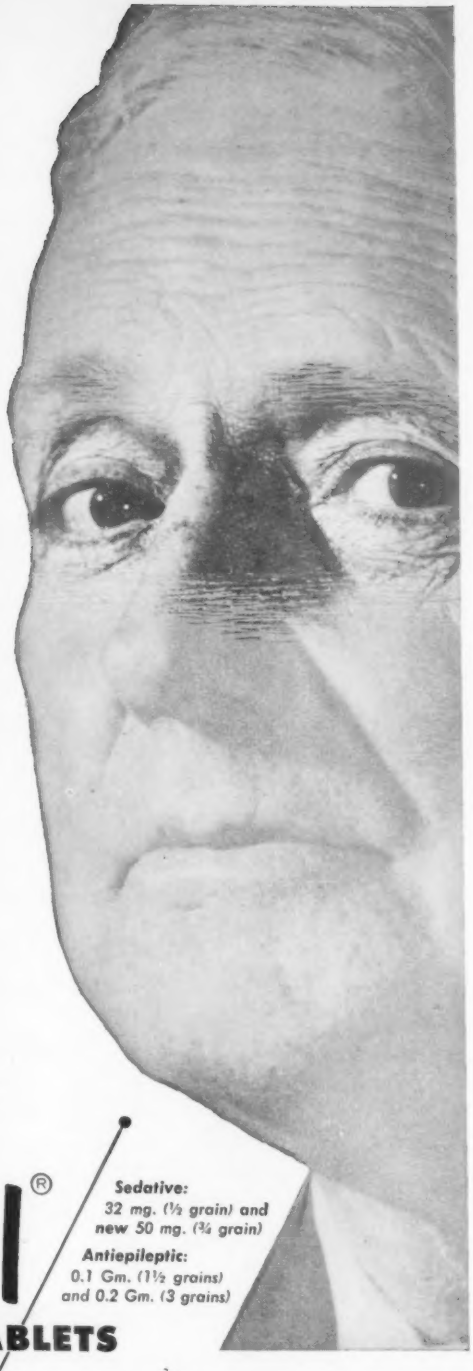

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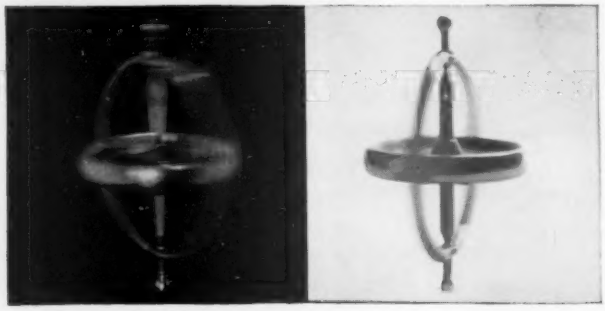
a non-barbiturate, non–habit-forming, tranquilizing and stabilizing agent



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(Squibb Reserpine)

Rau-sed may be employed to achieve a calming, tranquilizing effect. Rau-sed may be found useful in situations accompanied by stress and anxiety and has been reported helpful in a number of physical disorders with associated emotional overlay (such as headache, dermatologic disorders, gynecologic disorders, enuresis, etc.).

Oral Dosage for Office Practice: The usual daily dose may range from 0.25 mg. to 1.5 mg. Dosage may start with 0.25 mg. t.i.d., and may be adjusted upward or downward. It is important, in adjusting Rau-sed dosage, to consider that results may not appear for one to two weeks after therapy is instituted. When a maintenance level is achieved, Rau-sed may be given as a single daily dose or in divided doses, as the patient prefers. Some patients may need and tolerate higher dosage; in such patients, Rau-sed has proved most effective in conjunction with psychotherapy. *Note:* Patients receiving large doses, or those who receive the drug over a long period, should be watched for signs of depression; this can be alleviated by reducing the dosage or withdrawing the drug.

Supply: 0.1 mg. and 0.25 mg. tablets, bottles of 100 and 1000; 0.5 mg. tablets (scored), bottles of 50 and 500; 1.0 mg. tablets (scored), bottles of 30, 100, and 500; 4.0 mg. tablets (scored), bottles of 100 and 1000 (for psychiatric use). RAU-SED Parenteral, for the treatment of hospitalized psychiatric patients, 5.0 mg. and 10.0 mg. ampuls.

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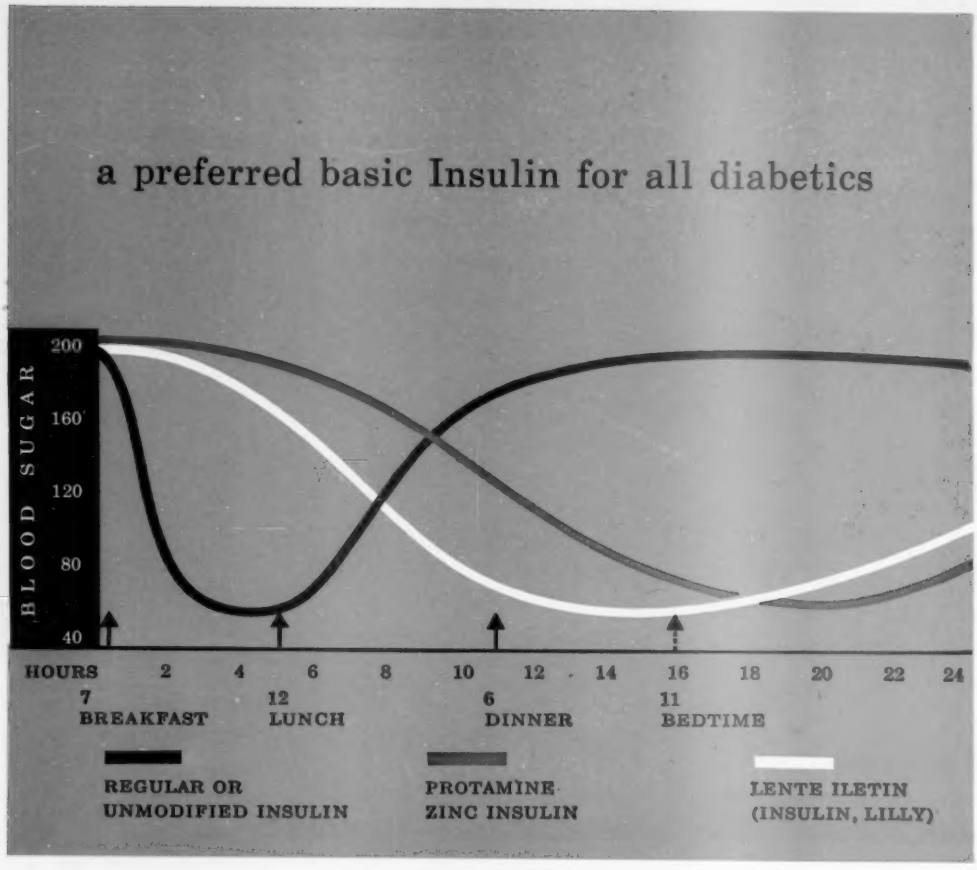

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Rocky Mountain Medical Journal

JULY, 1955

Colorado - Montana - New Mexico
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INAUGURATION of the 109th President of the American Medical Association took place in Atlantic City on June 7. Incoming President Elmer Hess led a program entitled "Medicine's Proclamation of Faith." Dr. Hess' purposes are rededication to spiritual ideals, a worthy and timely project for any business or profession in this hurrying world which has grown too far away from Christianity. It is inspiring to contemplate that our new leader should be of such stature. Speaking honors were shared with Norman Vincent Peale, D.D., Pastor of Marble Collegiate Church of New York City, and the talks were broadcast nationally through the American Broadcasting Company network.

Spiritual Leadership

Dr. Peale was also recently a guest speaker at the Annual Meeting of the American Association of Plastic Surgeons in Washington, D. C. He is an able speaker and, as a writer, is widely known as author of the best seller, "The Power of Positive Thinking." His teaching is in great demand among millions of Americans who consume thirteen million sleeping pills per night and take eleven million pounds of aspirin for seven and one-half billion headaches annually. Said Dr. Peale, "It has even gotten to the place where you can't put 'em to sleep with sermons!" Religion is a science and the Bible is the world's greatest textbook. The speaker mentioned facts with which our profession is all too familiar—the predominance of psychosomatic ills, and that there are not enough psychiatrists to go around. He mentioned that a group of psychiatrists had a meeting in New York City. Somehow a pigeon found its way into their meeting hall, and there he flew about for two days before a single psychiatrist would admit he saw him.

Dr. Peale went on to say that we need more of prayer, faith, and love. And what about the scars upon the soul that we surgeons cannot remove? He suggested that along with our scientific therapy we should practice the art of imperturbability. And it is a therapy with words and thoughts which will be passed on to our patients. Noticeable anxiety only leads to tension, which leads to pressure and loss of control. At such times, the best thing to do momentarily is nothing, except one thing: "Take your mind out of your head and go back to a placid scene in your past life—as quiet waters or the singing of a hymn." Ignore the negative thoughts and defeatist attitudes, then be confident in the favorable progress of events. By being quiet, serene and deliberate, control is regained and passed on to others with peculiar contagiousness.

Obviously, Dr. Peale has messages which we should imbibe and pass on to others incidental to our daily work. He states that society has a great investment in us as custodians of life and health. We will be more useful and live longer if we practice with serene imperturbability. And let us not forget the answer to all the woes of serving an ofttimes thankless public—make it according to the Golden Rule.

Are You Guilty?

THE vacation season is here. With it, the Fourth of July week-end. The highway slaughter. The fireworks accidents, sometimes even where fireworks are supposedly prohibited. The drownings. In fact, the trauma of every description (except those attributable to skiing!).

Why bring this up again, since every physician among us knows it? For one reason: too many recent surveys and articles in too many scientific publications as well as in general publications have pointed the finger at the medical profession for having forgotten the most essential tenets of simple First Aid! Too many of us have neglected our first-aid instruction in favor of our more commonly exercised medical knowledge. And, as many of us have only recently realized, newer scientific studies have developed new concepts of some facets of First Aid.

An excellent new booklet on this subject is now available from our own A.M.A. Why not write for a copy, today, addressing the Bureau of Health Education?

Common Sense

WE HAVE been told that science is "only applied common sense." This has been verified thousands of times and all over the world. Scientists, military leaders, research workers and institutions have proved it.

Interesting figures followed a recent project by the Arthritis and Rheumatism Foundation. Drugs — including hormones, endocrines, antibiotics and vitamins—were used to study 282 cases of rheumatoid arthritis. Drugs of every description were used; results were checked and double-checked. And the most useful of all the drugs was found to be aspirin!

Over-weight is a liability and a killer, as attested by any table of vital statistics. And what have years of research disclosed? The best way to lose weight is to eat less!

Someone has recently stated, "without the leaven of common sense science would float away until it lost itself in the stratosphere."

Doctors And the GAW

EACH of us in the medical profession has a great deal of pride in the accomplishment of Dr. Salk and his coworkers in perfecting a vaccine for prevention of poliomyelitis. His monetary rewards will undoubtedly be small but honors and satisfaction will be his the remainder of his life. The lifelong service of him and others in the research field are given without thought of reward or the "GAW" (guaranteed annual wage).

Does the American public ever consider how much free time and effort are donated by the physician and surgeon in clinics, preventive medicine and public health duties both public and private, including immunization programs for school children? During this present period of immunization for poliomyelitis, thousands of doctors of medicine all over the United States have gladly given of their time to see that all 1st and 2nd graders (also 3rd and 4th graders in last year's poliomyelitis field trial counties) are immunized at no charge. During these past years of insatiable pursuit of the almighty dollar by most everyone, would it not be well to remember the medical profession as one that is not wholly thus engaged? A doctor must be free from bureaucratic controls so his questing mind may pursue into the unknown for further cures and treatment of disease.

During this early period of automation when more and more people will have more and more goods and free time—your doctor continues to labor at the old rate of 70-80 hours per week and with no guaranteed annual wage. There is a week for nearly everything under the sun. Why not a National Doctor's Week, too? We like to be appreciated.

J. S. HELLEWELL, M.D.
Evanston

Needle Biopsy vs. Conventional Laboratory Tests*

ENDEL KASK, M.D.
New York, New York

THE diagnosis of liver disease most seriously challenges the judgment of the highly experienced and learned specialist. One does not need to be an old practitioner in order to know that such a specialist, even after repeated examinations, repetitions of all the chemical and hematological laboratory tests requested by him, and prolonged observation, frequently leaves us only with his opinion or a number of possibilities, all more or less likely. A definite diagnosis, expected as a consequence and purpose of the consultation, will be disappointingly absent, or, if given, is almost always based on unspecific and non-pathognomonic evidence; yet there appears to be a greater number of laboratory tests available for the diagnosis of liver disease than in the case of any other organ. The period of time required for observation and repetitions of tests may well be crucial to the life of the patient, the absence of correct diagnosis delaying the proper treatment.

Well-organized and extensive studies, sometimes based on thousands of cases, have demonstrated beyond doubt that our chemical and hematological laboratory tests for liver disease are unable to furnish us with a quick and binding diagnosis, and the same is the case with purely clinical observations and examinations, either separately or conjointly with laboratory tests. These statements having been amply confirmed by extensive studies which are easily available elsewhere, together with lists of supportive literature[1-2-3], this paper does not represent the wish to simply add to the lists, but wants to deal with the crucial *rapidity* of the diagnosis, dropping of unnecessary tests, and some clinical misconceptions, things that do not seem to have been stressed sufficiently in the previous papers. It is true that repeated laboratory tests can aid us considerably to arrive at a definite opinion (although not a clear-cut diagnosis), but they may almost as well add to the confusion, and even in the best case, which we cannot predict, they involve a loss of time that may be quite detrimental both to the health and the finances of the patient.

The pathologist with his microscope for direct observation of the parenchyma of an organ, the mass of a tumor, etc., is accepted by the clinician as a man who has the last word in the diagnosis of an organic disease, provided a suitable piece of the organ or tissue in question is referred to him for examination. Although clinicians sometimes argue that the architectural changes may be so finely distributed that the pathologist is unable to see them with his microscope, in spite of the fact that they may cause serious functional derangements, they cannot deny the positive findings observed by the pathologist. There does not seem to be any serious scientific evidence to support the possibility that a serious illness may be caused by dysfunctions of parenchymatous organs (excepting the brain), in which no pathologic changes are observed with the best histological methods. Such theoretical considerations may well be based upon single clinical observations that have been misinterpreted, and this assumption is well illustrated by a short case history given below. On the other hand, persons who walk around with demonstrable pathological changes in one or more of their organs without in the least being bothered by these changes, except perhaps when sub-

*From the St. John's Episcopal Hospital, Brooklyn, New York, where the author was formerly Resident in Medicine. At present Resident at Willard Parker Hospital, New York City.

jected to exceptional circumstances, are numerous and well authenticated.

Therefore, it seems logical that the pathologist should be the man to be consulted when in doubt about the condition of a parenchymatous organ, especially the liver. It is true that the pathologist often overdiagnoses the organ, as indicated above, but his observations give the clinician a clue of unique value when confronted with clinical and selected laboratory observations. The histologic observations cannot be denied specificity as they are made on the organ itself, a virtue that none of the chemical, hematological or cytological tests can claim. Of course, there is the technical problem of supplying the pathologist with a sufficient piece of tissue, but with the Vim-Silverman needle and intelligent technic this problem is not necessarily more serious than obtaining blood samples from a patient with poor veins. A needle biopsy of liver, kidney or spleen can conveniently be performed at the bedside of the patient, and the pathologist's report can be obtained practically as rapidly as the reports on blood or urine tests, the pathologist's report having a manifold diagnostic advantage in its favor. The reported risks of needle biopsy, especially of liver, appear to be frequently connected with the technic of active aspiration and a needle different from the Vim-Silverman type[4-5-6]. The objection that the specimen obtained with Vim-Silverman needle is too small to allow observation of changes unevenly distributed in different parts of a liver lobule cannot be given much weight when it is considered that the length of an ordinary specimen obtained with such needle exceeds the added lengths of the diameters of several liver lobules.

Previous investigations have established the superiority of needle biopsies over the conventional laboratory "liver function tests" in the diagnosis of liver disease, and the author's own series of sixty cases, the main basis of this article, confirms this, but at the same time it draws attention to two particular tests among these conventional function tests. It lends much support to the conclusion that these two particular tests, bromsulfalein retention and concentration of urobilinogen in the urine, are the only commonly available "liver function tests" to be seriously considered. Altogether, eight conventional "liver function tests" were used by the author. These are: serum albumin/globulin ratio, serum cholesterol and cholesterol ester concentration, serum thymol turbidity, serum cephalin flocculation, serum alkaline phosphatase activity, bromsulfalein retention, urinary urobilinogen, and serum icteric index. Although several of these tests were performed on more than one occasion on the same patient during the same hospital stay, only *one* (i.e., the initial) value of each test in a particular patient during the same hospitalization period is used in this study, thus giving the conventional "liver function tests" the same diagnostic chance as to the needle biopsy of the liver which was also performed only once on a particular patient during the same hospital stay. This is in conformity with the chief purpose of this paper: to evaluate diagnostic methods most efficiently serving the desire to establish the diagnosis *rapidly*. In the case of serum albumin/globulin ratio the exact concentrations of both albumin and globulin were determined, but only the albumin concentration was accepted for the comparative tabulation, as it is thought that only albumins, and not globulins, are, at least for the most part, produced by the liver.

Of the eight "liver function tests" the icteric index does not seem to deserve any evaluation at all as a diagnostic test because it is known that it is abnormally elevated more consistently in extrahepatic biliary obstruction and hemolytic jaundice than in liver disease. It can only be accepted as an indicator of the severity of the particular liver disease if this has been diagnosed with the help of other tests or observations. Bromsulfalein retention and urinary urobilinogen will be given special consideration. Consequently, there remain five "liver function tests," i.e., concentration of serum albumin, serum cholesterol esters, serum thymol turbidity, serum cephalin flocculation, and serum phosphatase activity, to be evaluated as to their diagnostic merits. Although serum total cholesterol concentration may be abnormal in liver disease (i.e.,

elevated in canalicular obstruction and lowered in advanced liver insufficiency with starvation, etc.), this abnormality can be given about the same position as icteric index, because it is more consistently and more markedly elevated in extrahepatic obstructive jaundice and some other diseases than in parenchymal liver diseases. Therefore, serum cholesterol ester concentration, and not the total cholesterol, has been accepted in this paper as a "liver function test." Many clinicians have the tendency to pay more attention to the *percentage* the serum cholesterol ester concentration forms of the serum total cholesterol concentration, rather than to the absolute value of the serum cholesterol ester concentration. There seems to be little, if any, justification for such an attitude. In cases in which serum cholesterol ester concentration is lower than the accepted "normal" percentage (i.e., 60 to 80 per cent) of the serum total cholesterol, but at the same time higher than the upper limit of the accepted normal range of the absolute value of the cholesterol ester concentration, i.e., higher than 200 mg. per 100 c.c., the total cholesterol concentration must be much higher than its accepted upper limit, and should consequently become of primary concern. On the other hand, cases in which cholesterol esters are more than 80 per cent of the serum total cholesterol, but having an absolute value less than the lowest accepted normal, i.e., less than 80 mg. per 100 c.c., the total cholesterol level must necessarily be quite abnormally low, and should, also here, become of primary concern. There remains a possibility that the absolute value of the cholesterol ester is within normal limits but is less than 60 per cent of the total cholesterol. In the light of this paper such minor deviations in percentage cannot be given any significance, because in several cases even major deviations did not have any significance, clinically or pathologically.

The five "liver function tests" have been tabulated in the table in an unusual manner. In view of the fact that the clinician desires a clearly abnormal value for a diagnosis, mean arithmetic values of the results of each test have been calculated separately in healthy and diseased livers. Livers with passive congestion, metastases, and primary cholangiocarcinoma are considered "healthy" from the standpoint of this paper. Diseased livers include all kinds of hepatitis, all kinds of cirrhosis (including biliary cirrhosis of which there are two cases in this series), fattey replacement, degeneration and infiltration, parenchymatous degeneration (including hydropic changes and focal degeneration), inflammatory cell infiltration without specific diagnosis, and hemosiderosis.

At this time, one may easily argue that all these histological findings may not at all explain the symptoms and disability and clinical findings in any particular patient, but may rather be an accidental finding or a consequence of another and more basic disease. This is admittedly so in several of the sixty cases, and this possibility has already been mentioned in this article. However, an even greater danger of overdiagnosis or over-interpretation lurks in the "liver function tests," because they are much less specific than a piece of liver itself. What is still more compromising to the time-honored "liver function tests," however, is the fact that most of them (i.e., all except bromsulfalein retention) relatively often fail to indicate any definite pathology even in cases in which all other evidence has pointed to the liver as the cause of serious disability, and in which either biopsy, or biopsy and autopsy, have unquestionably established the presence of advanced liver disease. As will be shown below, the only exception among these "function tests," bromsulfalein retention, would not permit the passing of such cases as without liver pathology, but it would not allow a positive diagnosis either, because it results too frequently in abnormal reports in cases without otherwise demonstrable liver pathology (including biopsy and autopsy as methods of diagnosis). The issue here is to find a practically applicable way of finding out rapidly whether or not the patient has any liver disease. If the histological examination of a piece of the patient's liver shows the presence of such disease then this cannot be debated. Then the clinician has obtained at least *one* diagnosis, and a quite specific diagnosis, especi-

ally if one takes into consideration that even if the "liver function tests" indicate an unquestionable presence of parenchymal liver disease they still do not allow us to say with any certainty **what kind** of parenchymatous liver disease. Having obtained at least one definite diagnosis by biopsy (which he may never get otherwise) it is up to the clinician to decide whether this histological diagnosis explains the patient's main symptoms and signs or whether a more basic and primary disease should be looked for. The examination of the biopsy specimen frequently points in a definite direction and thus aids even during such a further investigation.

The mean arithmetic values calculated are very close to the most likely actual values that are going to strike the clinician's eye in any of the two categories of patients when he sees the laboratory reports on the "liver function tests" he requested. In this way they most lucidly and bluntly illustrate the insecurity into which these reports will drive the clinician's mind regarding the diagnosis in most cases. In both categories, the mean values are disturbingly close to the borderline values, the differences between the two categories, one with and the other without liver disease, being too small for any definite opinion. In the case of alkaline phosphatase the mean value in patients with histologically normal livers is even higher (i.e. more "pathological") than in patients with diffusely diseased livers, and this in spite of the fact that in the number of these patients with diffusely diseased livers are included two patients with biliary cirrhosis, one of whom was proved by operation to have active extrahepatic obstructive jaundice by carcinoma of the ampulla of Vater, and who should be expected to demonstrate markedly elevated serum alkaline phosphatase (their values were near ten Bodansky units). Although the three patients with carcinoma in the liver itself are included in the category without diffuse parenchymal liver disease, their alkaline phosphatase values were not remarkably high to influence the mean arithmetic value considerably (they were 7.0, 8.3, and 8.1 Bodansky units, respectively), and they did not show any evidence of obstructive jaundice (they had no clinical jaundice).

In the case of cephalin flocculation test the difference between the categories with histologically normal and abnormal livers seems to be most significant of the five tests compared. However, the seemingly high mean value of 2.73+ is chiefly caused by the presence in this group of several cases with 4+ (mostly acute hepatitis), and not by consistently pathological values (2+ or

TABLE*

Test	Mean arithmetic values of reported results in patients with histologically diffuse parenchymal liver disease. Number of cases.	Mean arithmetic values of reported results in patients without diffuse parenchymal liver disease histologically. Number of cases.
Serum albumin concentration	3.51 gms. per 100 c.c. (41 cases)	3.65 gms. per 100 c.c. (19 cases)
Serum cholesterol ester concentration	106.3 mg. per 100 c.c. (39 cases)	115.9 mg. per 100 c.c. (18 cases)
Serum thymol turbidity	3.98 units (41 cases)	2.42 units (19 cases)
Serum cephalin flocculation	2.73+ after 48 hours (41 cases)	1.95+ after 48 hours (19 cases)
Serum alkaline phosphatase activity	5.76 Bodansky units (39 cases)	5.88 Bodansky units (18 cases)

*Note: The individual diagnoses were represented among the cases with diffuse parenchymal liver disease as follows: twenty cases with portal cirrhosis; three cases with acute or subacute hepatitis; three cases with simultaneous presence of portal cirrhosis and hepatitis; one case with simultaneous presence of portal fibrosis, subacute and chronic inflammation, fatty change, focal degeneration and cholestasis; one case with obstructive biliary cirrhosis; one case with simultaneous presence of markedly fatty change and obstructive jaundice with early cirrhosis; four cases with fatty change; three cases with parenchymatous or hydropic degeneration; two cases with hemosiderosis.

more) in histologically diseased livers. Four patients with cirrhosis of the liver, clear-cut and advanced both clinically and histologically, and one patient with marked fatty change, had a cephalin flocculation test only 1+ after forty-eight hours, which is regarded as a normal value by most clinicians. None of the patients with histological liver disease had a perfectly negative cephalin flocculation test after forty-eight hours, and none of the patients with histologically normal livers had a 4+ cephalin flocculation after forty-eight hours; so that only these extreme results of this time-honored test deserve serious diagnostic consideration. (These remarks are valid for reports on the *first* tests. In some cases of marked fatty change the cephalin flocculation test turned perfectly negative during the hospital treatment while the biopsy which was done later than the initial cephalin flocculation test and sometimes maybe closer to the negative repeat test, still showed fatty change).

Determinations of bromsulfalein retention (forty-five minutes after intravenous injection of 5 mg. per kilogram of body weight) and concentration of urinary urobilinogen are reserved for special report, as they extremely seldom failed, at least in one direction. If 4 per cent is accepted as upper limit of the normal bromsulfalein retention values with the method given above, then this test failed to indicate liver disease only in two of the thirty-five cases in which it was done and in which liver disease was proved histologically. These two cases, however, represent patients in whom the liver disease did not cause any disability or symptoms. One of these patients, a 37-year-old male with the clinical diagnosis of epidemic parotitis with complicating bilateral orchitis, in whom liver biopsy was performed because of 3+ cephalin flocculation test, had a bromsulfalein retention of 2 per cent and the histological examination of his liver showed slight parenchymatous degeneration. The other patient who was a 66-year-old man with carcinoma of the rectum and in whom liver biopsy was performed to try to obtain metastatic tissue from the questionably palpable liver, having 3+ cephalin flocculation, had a bromsulfalein retention of 3 per cent, and the histological examination of the liver biopsy specimen resulted in the dignosis of hemosiderosis. So that these failures had no clincal importance. However, if 7 per cent bromsulfalein retention is thought to fall within normal range, as it is frequently done by clinicians, then three cases with a clear-cut portal cirrhosis would pass as patients without liver disease in this series.

On the other hand, the bromsulfalein retention test is too sensitive for positive diagnosis of liver disease. Only in three of the fourteen patients who had histologically normal livers and in whom bromsulfalein retention test was done was the retention 4 per cent or less, and only one was reported to show no retention at all. In one of these normal liver patients the retention of the dye was reported to be 40 per cent (the patient had cardiac decompensation on hypertensive basis, but biopsy specimen failed to show congestion). Thus it seems that the bromsulfalein test is an acceptable test for not allowing persons with liver disease to pass as without the disease, but it can be used for positive diagnosis. Moreover, it has no value whatsoever in the most crucial cases, i.e., in jaundiced cases in which differentiation between parenchymatous and extrahepatic obstructive etiology is naturally urgently needed, as the bromsulfalein retention would be markedly abnormal in both cases.

The reverse seems to be the case with the concentration of the urine urobilinogen. It cannot be used to catch practically all persons with diffuse liver disease, and it will let many persons with severe liver disease pass as being without liver disease if relied upon alone, but it is a valuable test for positive diagnosis if it shows pathological values. The only considerable source of error in this respect seems to emanate from people with hemolytic jaundice of which sickle cell anemia forms the most significant group, especially during crises. In this series liver biopsy was performed by the author twice on a patient, one biopsy during each of the two hospitalizations for sickle cell hemolytic crises with visible jaundice, the patient being an 18-year-old negro girl with previously known sickle cell disease. She had significantly

elevated urinary urobilinogen during both hospitalizations, and also 3+ cephalin flocculation on both occasions. The biopsy specimen during the first hospitalization revealed "marked congestion of the sinusoids and moderate inflammatory cell infiltration of the portal triad"; so that on this occasion the perenchyma of the liver was not normal, and therefore the elevated urinary urobilinogen may also be regarded as an indicator of the liver disease, although it most likely was due to the hemolytic crisis with high serum bilirubin. During the second hospitalization, a few months later, however, the liver biopsy specimen was histologically normal in spite of the fact that the urinary urobilinogen was now even more elevated than during the first hospitalization.

However, if this patient with hemolytic jaundice be disregarded, then the nineteen patients remaining in whom the urinary urobilinogen was pathologically elevated all but one had histologically proved diffuse liver disease. The only exception, a 52-year-old negro man, had a considerable metastatic involvement of the liver, causing enlargement of the abdomen, with the primary growth evidently in the stomach as indicated by the x-ray report that stated without evasion that he had extensive gastric carcinoma. However, the diagnosis of carcinoma was made by liver biopsy before the x-ray examination, the pathologist's report also indicating the gastrointestinal tract as the likely primary site. In view of the fact that this patient evidently had a very extensive metastatic involvement of the liver, sufficient amount of the liver tissue may have been destroyed to cause real liver insufficiency and thus explain the elevated urinary urobilinogen, although against this possibility is the perfectly negative cephalin flocculation test and the thymol turbidity of 1.1 units. In spite of this questionable patient it may be said in favor of the test for urinary urobilinogen that if hemolytic jaundice can be ruled out (which does not appear to be difficult if the patient does not have hemolytic jaundice) then an elevated value of urinary urobilinogen quite definitely indicates that the liver is diseased. With "an elevated value of urinary urobilinogen" is meant a positive reaction for urobilinogen in a urine that has been diluted more than 1:30.

On the other hand, even patients with advanced diffuse liver disease often reveal normal concentrations of urinary urobilinogen. The twenty additional patients with histologically proved diffuse liver disease, most of them having cirrhosis of the liver, and in whom urinary urobilinogen was determined showed normal initial values. Some of them acquired elevated values on repeated tests, but such repeated tests are not in line with this paper, and it can also be said that the patients with initially elevated values and diseased livers could show normal values when the test was repeated.

Consequently, determination of urinary urobilinogen has outstanding diagnostic value only if pathological results are obtained (the abnormally low urinary urobilinogen concentration is indicative of extrahepatic obstruction). In contrast, the bromsulfalein retention test is of definite diagnostic value only if reports within normal limits (4 per cent or less retention) are received. The other "liver function tests" described in this article fail about equally in both directions and cannot be considered of any diagnostic aid in rapid diagnosis of liver disease, with the possible exception of extreme values of cephalin flocculation.

Direct biopsy of the liver is the only specific diagnostic means of the clinician trying to find out whether or not the patient has a parenchymatous liver disease. In its very definite favor can also be said that in this series of sixty cases, the liver biopsies of which were performed by the author at St. John's Episcopal Hospital in Brooklyn, New York, between May, 1953, and May, 1954, not a single case was encountered in which the disability, symptoms and signs could only be explained by diagnosing clinically and chemically liver disease, the biopsy specimen showing normal liver; and in this statement are included not only the possibilities of diffuse parenchymal liver disease but also the few cases of non-diffuse liver disease and the two cases of obstructive jaundice, although in patients with metastatic hepatic carcinoma the obtaining of carcinomatous tissue was admittedly at least

partly due to good luck. In one patient, however, primary cholangiocarcinoma, originating probably in the small bile ducts, was diagnosed very satisfactorily by biopsy, and it is difficult to see any other, even remote possibility to diagnose such a primary carcinoma. Also, the two patients with obstructive jaundice were more unquestionably diagnosed as such by biopsy than by the battery of the conventional laboratory tests, the alkaline phosphatase being almost normal.

One patient in this series excellently illustrates the statement made earlier in this article that the belief of some clinicians that a person may have a serious or fatal liver insufficiency with histologically normal or only slightly changed liver tissue is most likely based on misinterpretations or overestimations of the conventional laboratory tests. The patient was a 79-year-old, markedly obese woman who was admitted to the hospital for arteriosclerotic heart disease with auricular fibrillation and slight cardiac decompensation. Her cephalin flocculation test was 3+ both after twenty-four and forty-eight hours, the urinary urobilinogen showed positive reaction in dilution 1:40, the icteric index was 4 and 10 units on two occasions, respectively, and the bromsulfalein retention 60 per cent on one occasion and 70 per cent on another occasion a few days later. During digitalization she developed coma without localizing neurological signs. Evidence of encephalomalacia, caused either by thrombosis or embolism, developed forty-eight hours later when the patient came out of her coma. However, she could very well have died in this coma without having developed any localizing signs, and with such a multiple and strong laboratory evidence of liver disease (the percentage of bromsulfalein retention being the second highest in the whole series) as she demonstrated the temptation for many clinicians would have been strong to make the diagnosis of hepatic coma. The liver biopsy, performed a few days after the end of the coma, revealed only a slight "early" portal cirrhosis that the pathologist called "subclinical." The patient made a good recovery.

The diagnosis of acute hepatitis is almost always made on the basis of a "characteristic" history, clinical course and laboratory chemical findings. That this also is a consequence of misconception in relatively frequent cases is evidenced by several of my patients in the series.

CASE 1

A 13-year-old girl was admitted to the hospital with a history of vague abdominal pains, nausea and fatigue for eight days, dark-brown urine for seven days and icterus of the sclerae on the day of admission; previously healthy. The liver was questionably palpable, but there was percussion tenderness on right lower ribs anteriorly. Serum albumin 4.2 gms. per 100 c.c., serum cholesterol esters 42 mg. per 100 c.c., thymol turbidity 9.5 units, cephalin flocculation 3+ both after twenty-four and forty-eight hours, alkaline phosphatase 6.25 Bodansky units, icteric index 20 units, bromsulfalein retention 5 per cent, urinary urobilinogen 1:15. The physicians who saw the patient did not doubt that she had acute infectious hepatitis. However, the liver biopsy, performed a few days after admission, revealed portal cirrhosis without evidence of acute hepatitis. Clinically the patient recovered as the patient who is usually diagnosed to have acute hepatitis does in most cases.

CASE 2

A 23-year-old woman was admitted with a history of vomiting and vague epigastric pain for five days, and dark urine and icterus for four days. The liver was not palpable but there was tenderness at the right costal margin. The serum albumin 4.2 gms. per 100 c.c., serum cholesterol esters 88 mg. per 100 c.c., thymol turbidity 5.3 units, cephalin flocculation 3+ both after twenty-four and forty-eight hours, alkaline phosphatase 6.9 Bodansky units, icteric index 85, urinary urobilinogen 1:60, bromsulfalein retention (when the icterus was clinically receding) 20 per cent. No previous history suggestive of liver or biliary disease. The clinically readily accepted opinion was that the patient had a typical acute hepatitis. Again, the liver biopsy within a couple of days demonstrated early portal cirrhosis without hepatitis. Recovery as in a "typical" acute hepatitis.

CASE 3

A 64-year-old man was transferred from another hospital with a history of jaundice, dark urine, clay-colored stools, anorexia and slight right upper quadrant pain for two weeks. As the x-ray examination of the abdomen had been suggestive of common duct stone the physicians and surgeons at the other hospital had been seriously considering operation in spite of the contradictory laboratory evidence. This suggestive x-ray evidence of common duct stones was confirmed at our own hospital. The serum albumin was 2.88 gms. per 100 c.c., cholesterol

esters 52 mg. per 100 c.c., thymol turbidity 10.5 units, cephalin flocculation 3+ both after twenty-four and forty-eight hours, icteric index 110 units, urinary urobilinogen 1:80, bromsulfalein retention test not done. The liver edge was palpable just below the costal margin, relatively soft, questionably tender. No history suggestive of previous liver or biliary disease. The prevailing clinical impression was that this patient had a relatively severe acute hepatitis in spite of the x-ray findings. The liver biopsy a few days after admission gave the diagnosis of moderately well advanced portal cirrhosis, without evidence of hepatitis or obstructive jaundice. The patient made a fine and rapid clinical recovery on dietary treatment.

There are some other similar cases in the series, although less striking.

On the other hand, real hepatitis may be diagnosed by liver biopsy in cases in which it is thought to be almost out of question as a consequence of clinical experience. The following case illustrates this:

CASE 4

A 69-year-old nurse was admitted to the hospital as a patient with a history of dark urine for a week, painless, rapidly increasing jaundice for a few days, nausea on admission. Previous history revealed about three periods of melena during the last twenty years, last time also hematemesis (three years prior to this admission). The liver edge was palpable just below the costal margin, but no tenderness whatever could be elicited in spite of repeated examinations by different physicians. Except for the periods of melena and one bout of hematemesis no history suggestive of liver or biliary disease, but esophageal hiatus hernia and duodenal diverticula had been diagnosed previously and surgery recommended. The serum albumin was 3.45 gms. per 100 c.c., serum cholesterol esters 20 mg. per 100 c.c., thymol turbidity 8.3 units, cephalin flocculation 3+ after twenty-four and forty-eight hours, alkaline phosphatase 4.9 Bodansky units, icteric index 100 units, urinary urobilinogen normal initially, then rising to 1:60 and then returning to normal, bromsulfalein retention (when icterus clinically receding) 25 per cent. In spite of the short history and laboratory findings it was the prevailing opinion that the most likely cause of the jaundice was carcinoma of the head of pancreas, acute hepatitis being regarded as the least likely explanation in view of the patient's age and the complete absence of liver tenderness. A few days after admission the patient developed a profuse hematemesis and went into temporary shock which, however, receded without blood or plasma transfusion. X-ray examination with barium revealed an enormous espohageal hiatus hernia and two big duodenal diverticula, but no evidence of esophageal varicosities. The liver biopsy, about a week after the hematemesis, revealed portal cirrhosis and receding acute hepatitis. The patient made a satisfactory recovery within the next few weeks and resumed her job as a part-time private nurse.

Space does not permit reporting of other illuminating cases in which needle biopsy of the liver excellently solved the diagnostic problem and may quite possibly have saved the life of some patients by preventing surgery in a serious liver disease, and probably prolonged the life in another patient with obstructive jaundice by rapidly indicating the needed surgery. A clear-cut obstructive jaundice does not, of course, need any liver biopsy in order to have surgery undertaken, but the specific topic of positive diagnosis of such extrahepatic obstructive jaundice does not belong in this article. Suffice it to say that two of the eight "liver function tests" described in this article are good tests for the diagnosis of extrahepatic biliary obstruction. These two are serum alkaline phosphatase activity and the concentration of urinary urobilinogen. The test for alkaline phosphatase should be reserved for the diagnosis of extrahepatic obstructive jaundice in icteric patients because it has no diagnostic value in parenchymal liver disease. In extrahepatic obstructive cases it has definite value only if the level found is markedly above the patient's pre-jaundice level. With values of 10 Bodansky units or less liver biopsy is superior even in the diagnosis of obstructive jaundice. The test for urine urobilinogen is valuable in extrahepatic obstruction if the values found are abnormally low or if it is completely absent from the urine, all this in contrast to parenchymal liver disease in which the pathologically elevated values have diagnostic significance. However, consistently normal values of urinary urobilinogen may be present in a patient with a high degree of extra-hepatic obstruction as well illustrated by the patient with carcinoma of ampulla of Vater, whose icteric index increased to 195 units, the report on the urinary urobilinogen at the same time being 1:10. The serum alkaline phosphatase values staying persistently below 10 Bodansky units on three successive repeats, the liver biopsy finally, quickly and unquestionably established the diagnosis of obstructive

jaundice with beginning biliary cirrhosis. In the same patient, however, the total serum cholesterol increased from the initial 500 mg. per 100 c.c. to 800 mg. per 100 c.c. during the increase of the jaundice, thus suggesting that determination of serum total cholesterol may be of more diagnostic value in extrahepatic biliary obstruction than the tests for alkaline phosphatase and urinary urobilinogen. In none of the patients in the series with jaundice whose x-ray of the abdomen was definitely suggestive of gallstones but in whom serum total cholesterol remained normal or below normal was there any real extrahepatic biliary obstruction present. This statement was proved either by subsequent course or autopsy, the report on liver biopsy being in conformity with these, in that it proved the presence of severe parenchymal liver disease without definite evidence of biliary obstruction. In a female patient of 53 years, however, in whom the serum total cholesterol increased from the initial 362 mg. per 100 c.c. to 800 mg. per 100 c.c. (the cholesteral esters showing a corresponding increase from 82 to 500) within about a week and in whom the serum alkaline phosphatase and urinary urobilinogen remained within the non-diagnostic limits, the x-ray of the abdomen revealing no evidence of gallstones and the liver biopsy showing obstructive jaundice with early changes of cirrhosis and marked fatty change, recovery occurred thereafter rapidly without surgery. The gist in this case is that her icteric index decreased from 44 to 17 during the time the total cholesterol increased from 362 to 800. This points to the considerable importance of icteric index in the prognosis and course of jaundice, alluded to earlier in this paper, be the jaundice obstructive or not. The practical consequence is that even if there is no question of the diagnosis of obstructive jaundice surgery may not be necessary, at least not urgently, if the icterus is definitely decreasing.

The same Vim-Silverman needle can be used for biopsy of other organs than the liver. The author had the opportunity to use it in ten cases of kidney biopsy, two cases of splenic biopsy, and one case for the diagnosis of a mass in a breast. These numbers are too small to allow any statistical tabulation and conclusions, but as a definite impression of practical importance it may be stated that all these biopsies are technically more difficult and more frequently disappointing than in the case of liver biopsy, in which a failure is practically out of question.

The kidney being a considerably smaller organ than the liver the chances to miss it with a needle are also considerably increased, the same condition being valid for a normal-sized or only slightly enlarged spleen, and a relatively small mass. It is stated that even experienced kidney biopsy performers can expect only about 50 per cent success in obtaining satisfactory kidney tissue with a needle, in spite of the kidney's apparent localization with the help of an x-ray film. On the other hand, attempts to obtain the kidney tissue may be made with impunity on repeated occasions, because dangers, although small, t h a t exist in the case of liver biopsy do not appear to be present in kidney biopsy, the kidney having no large spaces to bleed into. This is illustrated quite well by one of the author's patients in whom the attempt to obtain kidney tissue resulted in finding of a piece of a large blood vessel in the needle (this being verified histologically). The withdrawal of the needle entailed a fountain-like bleeding from the puncture wound. A simple pressure for a minute or so, however, stopped this bleeding, and the patient had no adverse effects or increased anemia from this adventure.

In the ten patients the author obtained kidney tissue in eight. The two failures occurred disappointingly enough in the particular patients in whom a success to obtain kidney tissue was most important for diagnostic purposes, the q u e s t i o n being whether or not they had intercapillary glomerular sclerosis (Kimmelstiel-Wilson syndrome) or not. In three other cases, in whom satisfactory kidney tissue was obtained, the pathologist was unable to say with any certainty whether the basic diagnosis was nephrosclerosis or chronic glomerulonephritis, leaving us thus in the same diagnostic doubt as before the biopsies. In at least one young man, however, the kid-

ney biopsy resulted in the definite and revealing diagnosis of chronic, nonspecific pyleonephritis, after having been diagnosed clinically as chronic glomerulonephritis, the urine cultures being persistently negative. In two patients too small pieces of tissue were obtained for very definite examination, and in the remaining patients biopsy confirmed the clinical diagnosis.

Of the two patients whose spleens were biopsied, one had a clinically normal-sized spleen, and in repeated punctures resulted in a small piece of splenic tissue which was not sufficient for definite diagnosis. In the other patient, however, who had a considerably enlarged spleen, splenic biopsy yielded a good specimen on first attempt and verified his diagnosis of chronic lymphogenous leukemia which diagnosis was clinically held in doubt because of the considerable enlargement of the spleen.

Summary

In this paper the unique and specific value of needle biopsy in a rapid diagnosis of especially parenchymal liver disease is emphasized as contrasted to the confusing and non-specific results of the conventional "liver function tests." A partial exception in this condemnation of the "function tests" is made for determination of bromsulfalein retention and urinary urobilinogen, and possibly extreme values of cephalin flocculation. Liver biopsy with Vim-Silverman needle may be of decisive value even in the diagnosis of obstructive jaundice. In kidney disease needle biopsy seems to be less valuable because of the technical difficulties and the pathologist's inability to make a definite diagnosis even on a good piece of tissue.

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*Treatment of Spontaneous Subarachnoid Hemorrhage**

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SPONTANEOUS subarachnoid hemorrhage is an extremely serious intracranial catastrophe requiring prompt diagnosis and early, specialized treatment. Scarcely over a decade ago the disease usually went unrecognized, and in those cases where the diagnosis was established, the principal treatment was bed rest, with a fervent prayer that the bleeding would stop and the patient would survive. Hamby[1] made a thorough study, including autopsies, of 130 cases of spontaneous subarachnoid hemorrhage at the Buffalo General Hospital. He found that 39.9 per cent of the patients died as a result of their first hemorrhage. Of the survivors, 35.4 per cent suffered recurrent attacks, 28.5 per cent of whom died during one of these recurrent attacks. Magee[2], in a similar study of 150 patients suffering from spontaneous subarachnoid hemorrhage, found a 35 per cent mortality with the first hemorrhage. Of the ninety-eight survivors, fifty suffered recurrence and of these, 64 per cent expired. In addition, many of the survivors were either partially or totally disabled. From such statistics it is at once apparent that there are few acute diseases offering as great a threat to life as does spontaneous subarachnoid hemorrhage. Within the past few years an entirely new approach in the treatment of this problem has been developed. We are now able to offer these patients a better prognosis. It is the primary purpose of

*Presented at the meeting of the Colorado State Medical Society in Colorado Springs in September, 1954.

this writing to call attention, particularly of the physician engaged in general practice, to this very lethal intracranial disease.

The subarachnoid space is that area located between the thin, membranous pia mater which tightly covers the brain and spinal cord, and the water-tight arachnoid membrane lying beneath the dura. Ordinarily this space between the pia and the arachnoid contains cerebrospinal fluid. Many of the major blood vessels at the base of the brain forming the anastomotic circle of Willis lie within this space. Bleeding arising spontaneously from these vessels or other vessels lying in the subarachnoid space will cause bloody spinal fluid. Thus, the term "spontaneous subarachnoid hemorrhage." Bleeding will sometimes occur into the subarachnoid space secondary to head trauma, but it is traumatic in origin, not spontaneous, and is not included in this discussion. Likewise, massive hemorrhage occurring actually within the brain substance, and commonly referred to as "apoplexy," will occasionally dissect through the cerebral parenchyma and escape directly into the surface subarachnoid space or indirectly into it through the ventricular system, producing bloody spinal fluid. Such hemorrhages into the cerebrospinal fluid also are not included in this discussion, nor are those cases of hemorrhage secondary to brain tumors, blood dyscrasias, or other similar lesions. Actually, a large majority of patients having a spontaneous subarachnoid hemorrhage have it as a result of a leaking intracranial aneurysm. A very few subarachnoid hemorrhages result from leaking arteriovenous malformations. Some subarachnoid hemorrhages remain unexplained.

Most intracranial aneurysms occur in the circle of Willis or in its immedate incoming or outgoing arteries. In the very early fetal brain, as compared to the adult brain with which we are born, there are many more blood vessels arising from or in the region of the circle of Willis. As the fetus grows, many of these vessels disappear. Often, however, there are weak places in the mature arteries in the areas where these fetal vessels had been present, and it is apparently at these "congenitally" weakened locations in the arterial walls that aneurysms develop[3]. Intracranial aneurysms vary in size from that of a pinhead to as large as a plum. There are particular areas in the circle of Willis where the aneurysms are most often found. The intracranial portion of the internal carotid artery just proximal to its bifurcation into the anterior and middle cerebral arteries is a common location for aneurysms to develop, and, incidentally, a rather favorable site for surgical attack, as will be shown later. Another common location for aneurysms is on the anterior communicating artery. The middle cerebral arteries, rather close to their origins, have their share of aneurysms, and a few arise in one of the two small posterior communicating arteries. A small percentage are located on the basilar, vetebral, or posterior cerebral arteries.

The symptoms of a spontaneous subarachnoid hemorrhage are, in the average case, so typical that the diagnosis is immediately suggested. Most often the patient has been enjoying the best of health and suddenly experiences a severe headache, usually suboccipital in location, and frequently accompanied with nausea or vomiting. There may or may not be disturbance of consciousness. Nuchal rigidity will usually be present but perhaps not for twenty-four to forty-eight hours after the onset. Subhyaloid hemorrhages in the retina are sometimes present. Frequently the neurological examination will otherwise be entirely normal, although this is not always true. Optic atrophy due to direct pressure on the nerve is sometimes present and less often papilledema will be found. The oculomotor, or third, cranial nerve lies in close proximity to the intracranial portion of the internal carotid artery and so may easily be involved by any expanding lesion at that location. This is probably the most common finding in patients with aneurysm involving carotid artery[4]. Third cranial nerve involvement is manifested by ptosis of the eyelid, enlargement of the pupil, and a tendency toward deviation of the eye outward on the involved side. Occasionally numbness of the ipsolateral side of the face in the distribution of the trigeminal, or fifth, cranial nerve may occur due to pres-

sure directly on it or one of its major branches by an aneurysm. The abducens, or sixth, cranial nerve is occasionally affected, giving diplopia due to paralysis of the lateral rectus muscle. Occasionally such localizing signs as contralateral weakness or hemiplegia are found, and they are usually the result of an aneurysm rupturing upward into overlying brain parenchyma and producing an associated intracerebral clot (Case 7). The nature of the intracranial lesion can be further strengthened by the finding of either uniformly bloody or xanthochromic spinal fluid. Bloody spinal fluid in subarachnoid hemorrhage can be differentiated from a "traumatic tap" by the successive collection of fluid in different tubes showing no clearing, by microscopic examination of the red blood cells in the fluid showing a large percentage of crenation, and by centrifuging the fluid and demonstrating xanthochromic or yellowish discoloration of the supernatant portion. A small percentage of the cases with intracranial aneurysm will show linear calcification on the skull x-ray as the result of some calcium deposition within the wall of the aneurysm. Also, there sometimes may be localized bony erosion demonstrated on the x-rays of the skull and more often in the region of the anterior clinoid processes.

This is a disease, for the most part, of the young and middle-aged adults, although we are beginning to realize that it does occur in patients in their sixties. It is uncommon in children. Most so-called "strokes" occurring in relatively young people are probably due to ruptured cerebral aneurysms and such should be considered. The diagnosis of spontaneous subarachnoid hemorrhage is usually easy, and the sooner the origin of the hemorrhage is established and proper treatment instituted, the better the chance of that patient's survival.

The treatment of the underlying cause of most spontaneous subarachnoid hemorrhages is surgical, and all such cases should be placed in the hands of a neurosurgeon as quickly as possible. Cerebral angiography can be credited with having given the greatest impetus to an understanding and treatment of cerebral aneurysms. Cerebral angiography is the method of radiographic visualization of the cerebral blood vessels which in recent years has become an extremely valuable diagnostic procedure, not only to demonstrate aneurysms and arteriovenous malformations but also such space-occupying lesions as brain tumors, brain

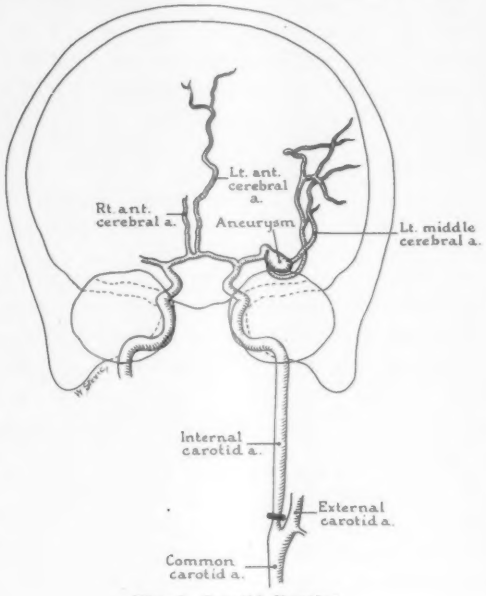


Fig. 1. Carotid ligation.

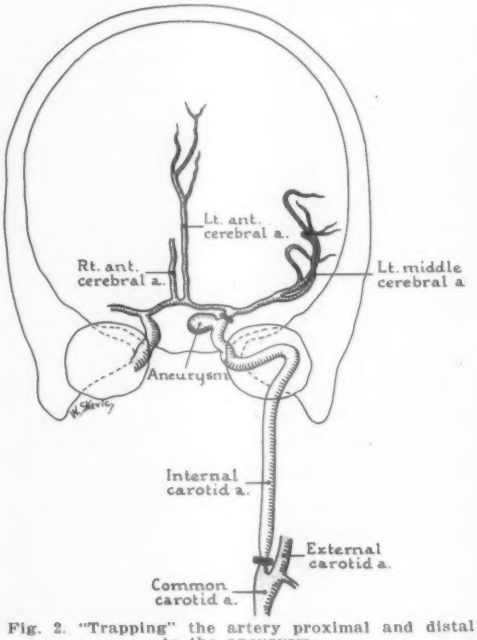


Fig. 2. "Trapping" the artery proximal and distal to the aneurysm.

abscesses, subdural and extradural hematomas and the like. This procedure was first shown to be practical by Moniz[5-6] and later popularized in this country[7-8]. Modifications and refinements in the procedure are constantly being added as our experience increases. At first it was thought that the carotid artery had to be exposed in the neck to make the necessary dye injections. We now do practically all of our arteriograms percutaneously, that is, by direct needle puncture into the carotid artery in the neck. Bilateral injections can be done the same day. The vertebral system, in addition to the carotid system, can also be injected by the percutaneous method[9]. The contrast media preferred are 35 per cent Diodrast or 30 per cent Urokon. In those patients having a known sensitivity to the above drugs, or in those in the older age group, Thorotrast is utilized. Films are made stereoscopically in both AP and lateral views, and preferably in both the arterial and venous phases. The carotid arteriograms are carried out bilaterally in all cases in order to rule out multiple lesions and to estimate the degree of collateral flow, particularly across the anterior communicating artery. In those cases in which bilateral carotid angiography has failed to demonstrate the presence of an aneurysm, a vertebral arteriogram is also done. It is extremely important by cerebral angiography to accurately localize and determine the nature of the vascular lesion, for on this information the surgical attack depends. As a note of caution, cerebral angiography should be done only by the surgeon qualified to carry out the definitive treatment. Angiography is not without some risk, but this risk is definitely minimized by the percutaneous method of injection, by the proper selection of contrast media, and by the use of as little dye as possible. Once the physical condition of the patient with spontaneous subarachnoid hemorrhage has stabilized, bilateral carotid angiography should be carried out without delay. The surgery should then be done as soon as practical.

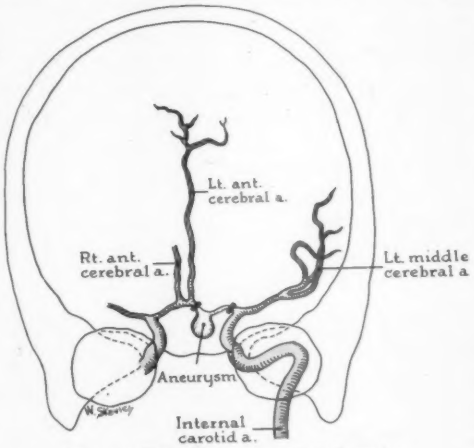


Fig. 3. "Trapping" in another location.

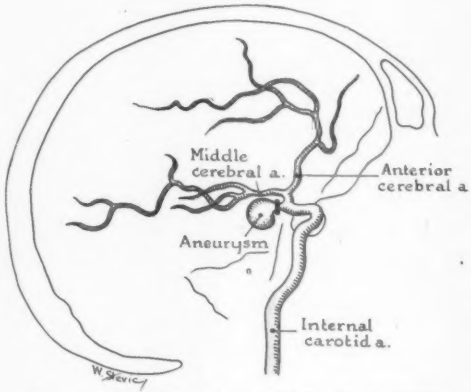
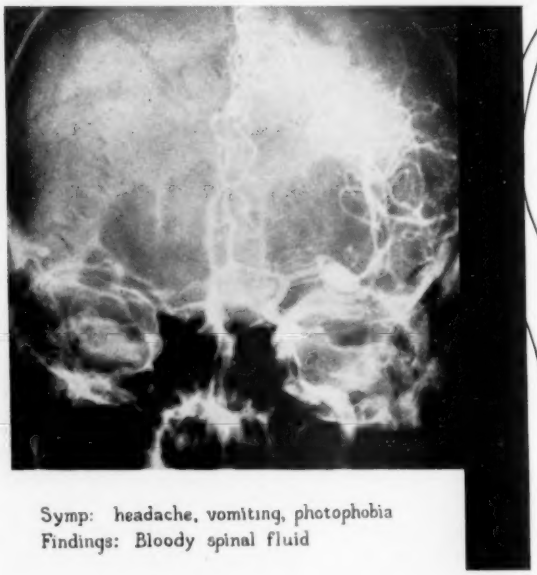


Fig. 4. "Ligation" of the neck of an aneurysm.

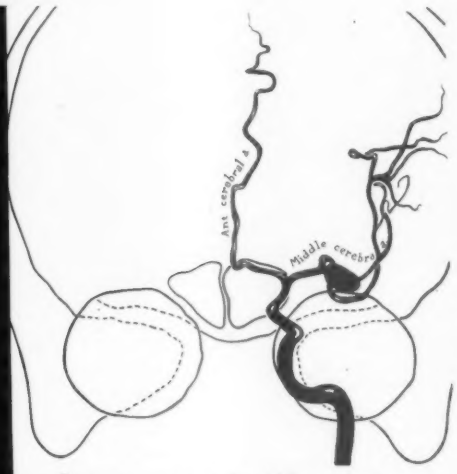
There are four different surgical methods in the treatment of cerebral aneurysms[7-10-11-12-13-14-15]. These are: (1) ligation of the internal carotid artery in the neck[5]; (2) "trapping" of the aneurysm; (3) ligation of the neck of the aneurysm intracranially[6]; and (4) "wrapping" of the aneurysm[2]. The particular surgical method used depends entirely upon the exact location of the aneurysm. Carotid ligation in the neck (Fig. 1) is the simplest method, and it is done with the idea of partially reducing the pressure within the aneurysm, hoping that this will allow clotting to occur within the aneurysm and prevent further rupture. "Trapping" is a method whereby the artery is ligated proximal and distal to the aneurysm, therefore completely isolating it from its blood supply (Figs. 2 and 3). Ligation of the neck of an aneurysm is done by directly attacking the lesion intracranially and placing a small silver clip across the narrow neck quite close to its origin from the artery

(Fig. 4). "Wrapping" of the aneurysm is done by exposing it through a craniotomy and then wrapping hammered muscle loosely around the aneurysm. It is hoped that such wrapping will reinforce the wall with periarterial scar and prevent further hemorrhage. The particular surgical method chosen depends upon a number of exact factors such as the age of the patient, the location of the aneurysm, the degree of collateral circulation present, and the general condition of the patient. Method number one, or ligation of the internal carotid artery, is used mainly in those cases where the aneurysm is so located as to be difficult or impossible to approach by craniotomy (Case 1), or in those cases where approaching the lesion directly offers too great a chance for permanent neurological deficit (Cases 2 and 3). Method number two, or "trapping" of the aneurysm, is ideal for those lesions located in the intracranial portion of the carotid but proximal to the bifurcation. In such cases, the carotid can be ligated in the neck and then a clip can be placed across it intracranially just proximal to its bifurcation, isolating the aneurysm and yet preserving a large part of the collateral circulation to that same hemisphere. In such cases, if the anterior communicating and perhaps also the posterior communicating arteries are of sufficient size, adequate collateral circulation should be present to supply the ipsolateral hemisphere in spite of the deprivation of the internal carotid arterial blood supply. Aneurysms involving the anterior cerebral artery between its origin but proximal to the anterior communicating artery are ideally treated by "trapping," provided adequate anterior communicating artery collateral flow is present (Cases 4 and 5). The third surgical approach, or that of direct attack on the aneurysm with clip ligation of the neck, is a very desirable way of taking care of such lesions. However, this requires an aneurysm with a relatively narrow neck (Cases 6 and 7). We have had no actual experience with the fourth surgical method, known as "wrapping" of the aneurysm, as advocated by Falconer[16], but I think that there are occasions where such a method would be valuable. Of the various methods of surgical attack of aneurysms, that of internal carotid ligation in the neck carries the least risk[12], but actually offers the patient the least amount of protection so far as rupture of the aneurysm and recurrence of subarachnoid bleeding is concerned. The mortality rate with carotid ligation in the

CASE 1

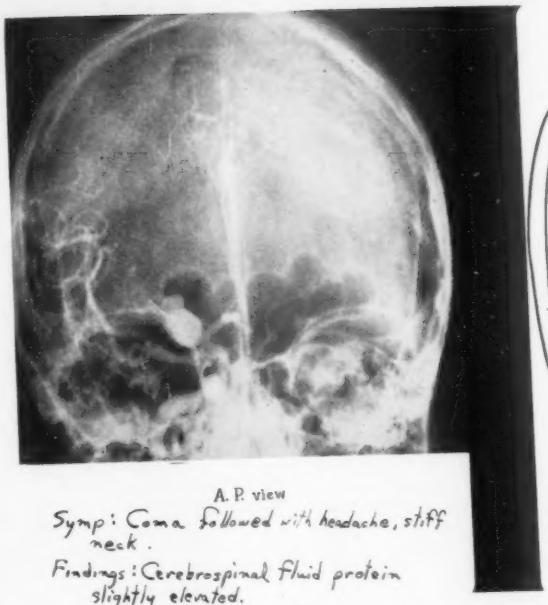


Symp: headache, vomiting, photophobia
Findings: Bloody spinal fluid



Diag: aneurysm, left middle cerebral a.
Treat: staqe ligation left internal carotid

CASE 2



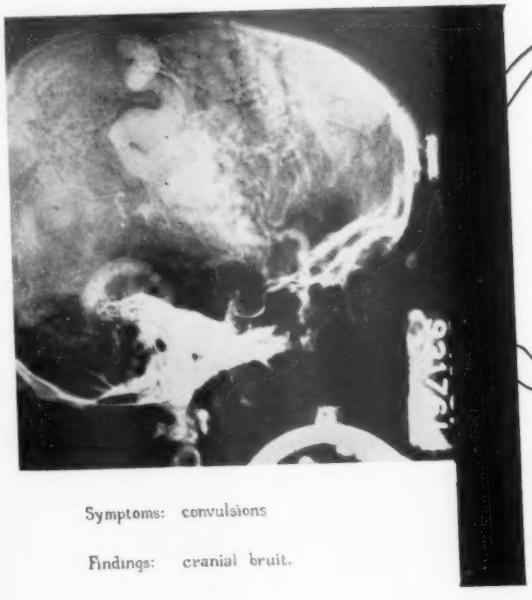
A. P. view

Symp: Coma followed with headache, stiff neck.

Findings: Cerebrospinal fluid protein slightly elevated.
Electroencephalogram, questionable lesion right hemisphere.

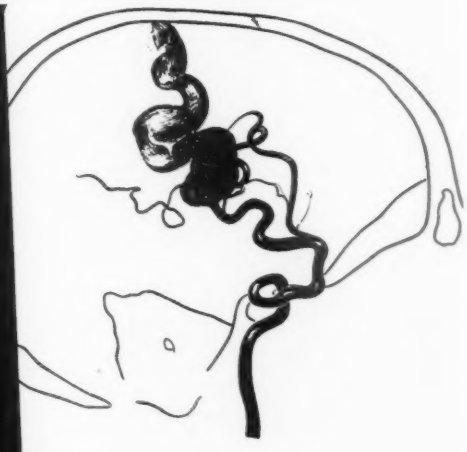
Diagnosis: Large aneurysm, bifurcation internal carotid artery.
Treatment: Ligation right internal carotid artery.

CASE 3



Symptoms: convulsions

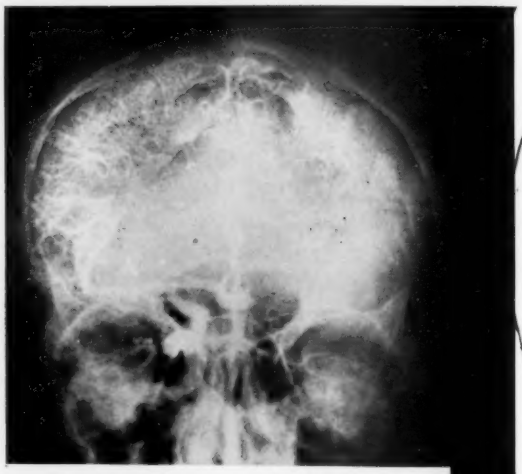
Findings: cranial bruit.



Diag: arterio-venous malformation
(Note huge cerebral emptying vein)
Treat: Ligation left internal carotid.

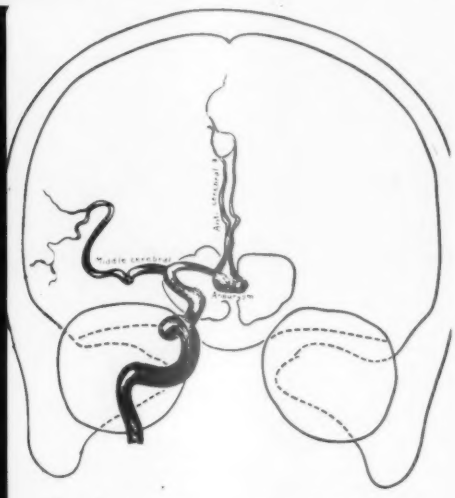
neck, particularly in well-selected cases, is considerably less than 5 per cent. Our operative mortality with direct intracranial attack at the present time is in the neighborhood of approximately 20 per cent. These figures are constantly being reduced as our experience with intracranial aneurysm grows. When we compare these operative mortality rates against a mortality rate of almost 60 per cent with the initial hemorrhage under conservative treatment, plus the fact that as many as two-thirds of the

CASE 4



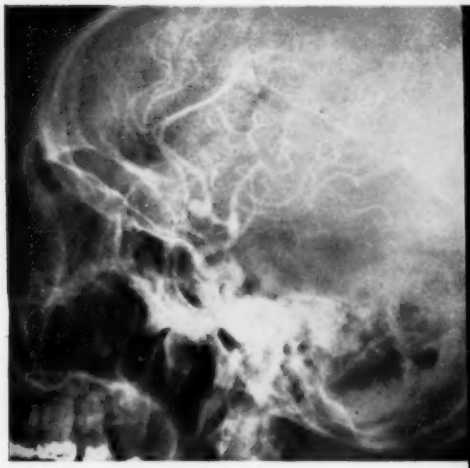
Symp: Sudden severe headache c stupor.

Findings: Meningeal signs c bloody C.S.F



Diag: aneurysm, ant. communicating a.
Treat: craniotomy requiring ligation of both ant. cerebral aa.

CASE 5



Symp: Two attachs severe headache, nausea, vomiting.

Findings: Reported bloody spinal fluid on one occasion.

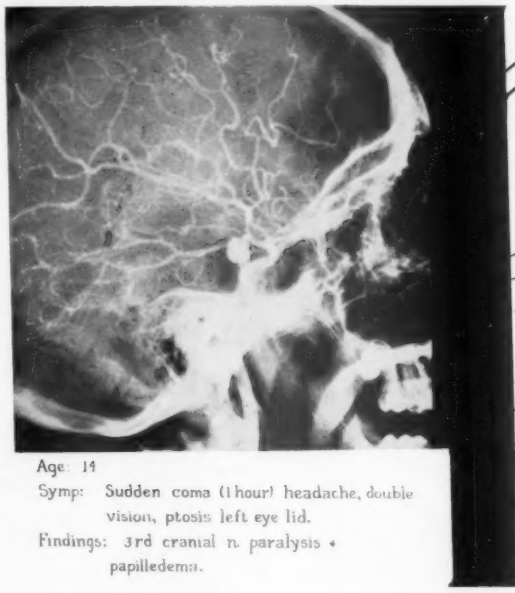
Diag: Aneurysm-ant. communicating a.-filled only from left side.

Craniotomy: Trapping of aneurysm

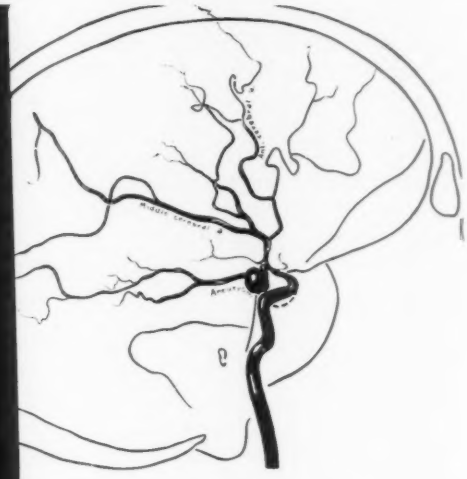
survivors under conservative treatment will die during subsequent attacks, we believe that we can offer these patients a great deal more by bold surgical approach.

In summary, the majority of spontaneous subarachnoid hemorrhages result from bleeding intracranial aneurysms. According to authoritative studies, the mortality rate under so-called conservative treatment with the initial hemorrhage is from 35 to 63 per cent, and perhaps as high as 65 per cent of those that survive the initial attack

CASE 6

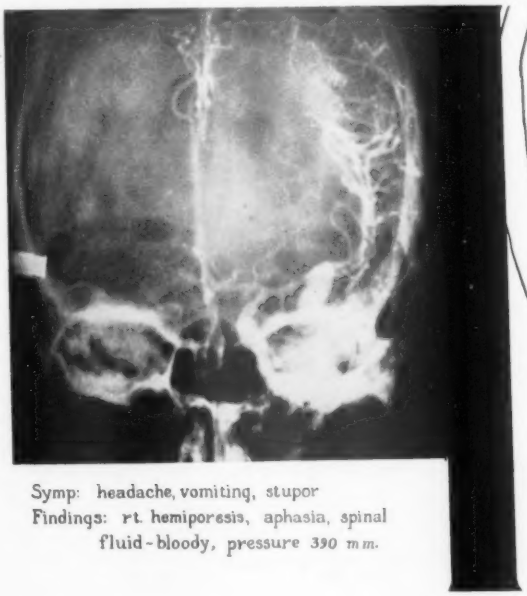


Age: 14
Symp: Sudden coma (1 hour) headache, double vision, ptosis left eye lid.
Findings: 3rd cranial n. paralysis + papilledema.

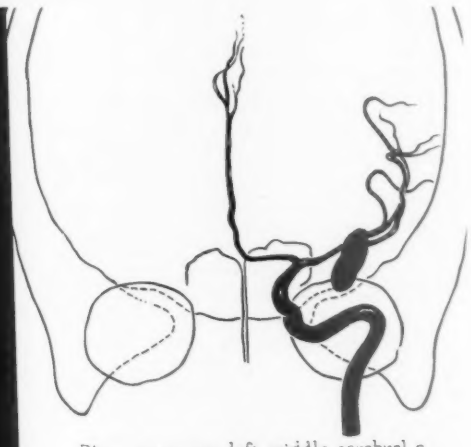


Diag: Aneurysm internal carotid a
Treat: Craniotomy & ligation of neck of aneurysm.

CASE 7



Symp: headache, vomiting, stupor
Findings: rt. hemiporesis, aphasia, spinal fluid - bloody, pressure 390 mm.



Diag: aneurysm, left middle cerebral a. with frontal lobe intracerebral hematoma (note ant. cerebral shift)
Treat: craniotomy evac. intra cerebral hematoma, ligation aneurysm, patient died 36 hrs. post op. – cerebral edema

will die during subsequent attacks. Spontaneous subarachnoid hemorrhage is characterized by a sudden severe headache, meningeal signs, possibly some cerebral localizing signs, and by bloody spinal fluid. Cerebral angiography should be carried out promptly. Once the aneurysm has been located, the treatment is surgical. The particular surgical method chosen depends upon a number of factors, including the location of the aneurysm, the condition and age of the patient, and the degree of collateral circulation. The four methods of surgical attack are: (1) ligation of the internal carotid artery in the neck; (2) trapping of the aneurysm; (3) ligation of the aneurysm; and (4) wrapping of the aneurysm. It has been demonstrated that these patients have a better chance of survival if operated. The survival rate is constantly being improved as experience in dealing with these lesions becomes greater. It is the particular responsibility of the practicing physician to recognize quickly the presence of a spontaneous subarachnoid hemorrhage and to see that such patients are promptly placed in the care of a doctor experienced in such matters.

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USE OF COBALT AND IRON IN THE TREATMENT AND PREVENTION OF ANEMIA OF PREMATURITY (Abstract)—Coles, B. L., and James, U.: Journal Lancet 75:79 (March) 1955.

The pathogenesis of the anemia of prematurity is still somewhat obscure, but the blood picture closely resembles that of anemia associated with infection. In each case the anemia is normocytic and normochromic with a low reticulocyte count, and this similarity between the anemia of prematurity and that of sepsis prompted an investigation of the effect of cobalt in premature infants.

The study included 126 infants who were divided into four groups. Of these eighty-three were followed for six months or longer. Group 1 acted as controls. Group 2 received 10 mg. of cobalt sulfate daily from one to twelve days. Group 3 received 20 mg. of cobalt sulfate daily from four to eight weeks. Group 4 received 20 mg. of cobalt sulfate and 4.5 gr. of ferrous sulfate daily from four to eight weeks.

Infants in Groups 3 and 4 combined had a significantly higher average hemoglobin content and red cell count at each examination from two months onward than Groups 1 and 2 combined. Infants in Group 4 had significantly higher hemoglobin contents from four to six months than Group 3, also receiving cobalt but no iron. At this stage iron deficiency becomes important in the development of anemia in premature infants, and these results were to be expected. No case receiving iron and cobalt from four to eight weeks required any additional therapy, but all cases that did were from the control group.

Cobalt appears to be of value in the prevention of early anemia in premature infants, and if iron is administered simultaneously, the risk of an iron deficiency anemia developing after the fourth month is considerably reduced. Cobalt has no toxic effects and no unfavorable influence on the weight gain in the dosage employed. The mode of action is uncertain, but two possibilities seem likely:

(1) A direct action on the erythropoietic tissue in the marrow.

(2) A possible catalytic action enabling available iron to be more readily utilized for hemoglobin synthesis.

Epileptic Deterioration*

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THE problem of mental deterioration occurring in the course of recurrent epileptic seizures is one that has preoccupied clinicians for many years. By epileptic deterioration is meant a progressive dementia due to recurrent seizures, when these are the presenting symptom and there are no signs of gross organic defect in the central nervous system. This definition excludes seizures as an accompaniment of mental deficiency.

Much has been written on the subject, yet the problem remains as urgent and in some way, perhaps, as nebulous as ever. Such general statements as, "In idiopathic epilepsy when fits are infrequent, the intellect remains unimpaired" are frequently found in standard works, or again, "It is well known that frequently repeated attacks of epilepsy, either of the minor or major variety, tend to cause a deterioration of intellect which may progress to complete dementia."

Bridge, in 1949, after a careful study of convulsive disorders in children, stated that severe or prolonged seizures set up conditions in the brain which caused additional damage to nerve cells, and the degree of injury, and therefore also the degree of mental impairment, varied directly as the frequency, severity, and duration of the convulsion. These quotations are enough to show that the concept of a direct relationship between the presence of recurrent seizures and the onset of intellectual impairment is fairly well established in medical thought. It is the purpose here to question this concept and to try to show that in many cases there are factors other than the recurrent seizures responsible for the impairment.

In the last few years it has been increasingly realized that in some cases of epilepsy, associated with intellectual impairment, both have a common basis in disease of the nervous system which has hitherto been unrecognized.

The first group of cases to discuss consists of children with degenerative diseases of the nervous system presenting as seizures and progressive dementia. In 1952, Cobb and Martin described a group of patients all of whom were attending the National Hospital Queen Square, with a diagnosis of epilepsy and mental defect. The electroencephalograms in these cases were strikingly similar consisting of a background of high voltage, 1½ - 6 c/s activity with paroxysmal outbursts of high voltage triphasic waves, showing no constant focus and often occurring bilaterally and synchronously. Search through all the records of children with epilepsy revealed a further half dozen in which the electroencephalographic findings were similar; and in these six patients, two were proved to have lipoidosis at autopsy, three were diagnosed as cerebral lipoidosis clinically, and one had the characteristic macular degeneration. Of a total of twelve patients, five had no signs at all, on routine clinical examination of the nervous system, and were being followed as cases of epilepsy with progressive mental deterioration. On the basis of the electroencephalographic findings a diagnosis of lipoidosis was suggested and subsequently verified. It is of interest to note that in three of these cases the epilepsy was considered to be of either the myoclonic or akinetic variety.

A similar diagnostic problem may arise in children suffering from Van Bogaerts subacute sclerosing leuco-encephalopathy. This progressive disease usually arises in children between 5 and 14 years of age. Of insidious onset, it progresses relentlessly to its fatal termination in a few months or a few years. These children are often re-

*Presented at the 6th Western Institute on Epilepsy, Galveston, Texas, October, 1954. From the Division of Neurology, University of Colorado Department of Medicine, Denver, Colorado.

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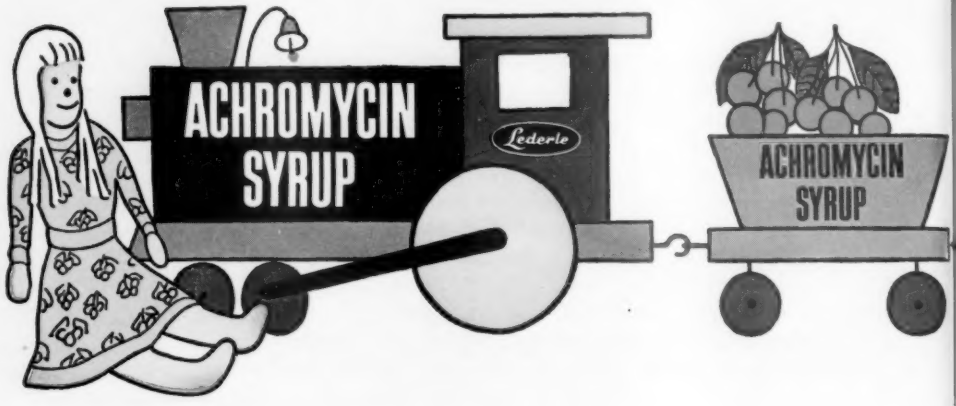

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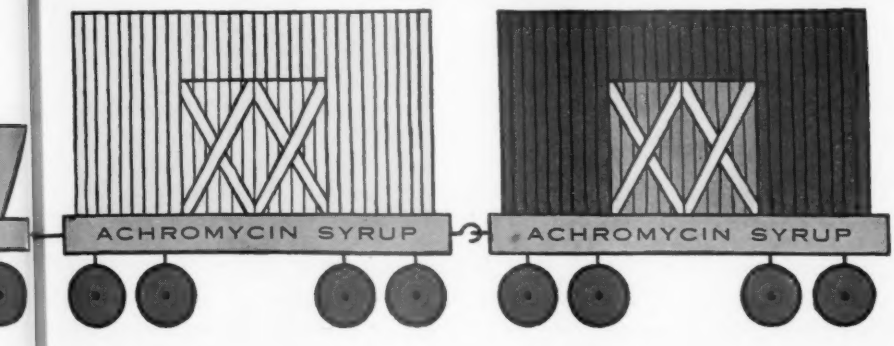

SYRUP

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ferred because of deterioration in their work and behaviour, frequently accompanied by brief seizures, often of a myoclonic variety. As the disease progresses, the dementia becomes more profound, and in addition to myoclonic jerks, torsion and choreiform movements occur and ultimately a mute, decerebrate state. It is in the early stages that the recognition of this disease presents difficulties; but even here, the electroencephalogram may show a gradual disappearance of normal rhythm and the development of a repetitive complex of high voltage slow waves having paroxysmal occurrence and showing a tendency to periodicity.

There is another group of children who, at an early age, commence to suffer from epileptic seizures; and although these seizures may not be frequent, they are often very difficult to control. The child becomes dull and backward and is regarded as suffering from idiopathic epilepsy with deterioration. Careful examination of these children will often give one a clue that the symptoms have an underlying organic basis. One of the more obvious examples of this, of course, is tuberous sclerosis, and this is easily diagnosed if there is the characteristic distribution of adenoma sebaceum of the Pringle type, but this is not always present and examination of the family may be necessary to reveal the typical adenoma in some of the siblings. There may be radiologic evidence of intracerebral calcification in the absence of adenoma sebaceum. In one personal case, the only cutaneous manifestations were multiple, small, angiofibromatous nodules along the margin of the nail beds.

From time to time in these patients, one may see isolated phakomata on the retina; and these, taken in conjunction with the history of epilepsy and some mental impairment, would be significant of underlying tuberous sclerosis. On the one hand, tuberous sclerosis may present as a clearly defined entity; on the other, it blends imperceptibly with other neuroectodermal dysplasias, Von Recklinghausen's disease, and the Sturge-Weber syndrome. It is worth remembering some of the more unusual manifestations of these conditions, some of them minor, many of them easily overlooked. From the dermatological point of view, one may, of course, see the classic café au lait patches. These are by no means constant, and there are many other skin lesions which would be suggestive if taken in conjunction with the above history. Alternate patches of bronzing and vitiligo may occur. There may be nevi scattered over the skin. Pigmented moles, blue-dimpled spots and more rarely elastic skin are seen. Bony abnormalities may occur without any other gross features. Kyphoscoliosis is common; localized atrophy of bone may occur. Occasionally, osteitis fibrosa may be significant. Any of these skin or bony abnormalities in association with epilepsy and intellectual impairment should raise a suspicion that the underlying lesion is associated with neurofibromatosis. It is, perhaps, cases of this sort, and of the above, that have given rise to the concept that if epilepsy occurs in the first few years of life, particularly before the age of 7, then the chances of the patient being mentally quite normal are very small. This is the first group. Those cases of epilepsy and deterioration in which both are due to an underlying organic nervous disease which can be diagnosed by careful examination and understanding of the significance of some apparently rather minor findings noting that in some of the progressive diseases, in recent years the electroencephalogram has been shown to be rather characteristic.

The next group is an interesting one, since for many years it has been pointed out that in those patients suffering from true petit mal, intellectual impairment is very rare. In his classic paper on pyknolepsy, many years ago, Adie pointed out that this consisted of frequent, slight, monotonous, petit mal attacks, completely uninfluenced by treatment, carrying a very good prognosis and not impeding normal mental or physical development. This is true in the large majority of cases, but there are two circumstances in which the child with petit mal attacks may show apparent deterioration. The first is a familiar situation, that of serial petit mal. We have recently had under our care a girl, 14, who some two or three years ago was bright and intelligent

while she was having attacks of true petit mal, accompanied by short bursts of bilateral synchronous three c/s waves and spikes on the electroencephalogram. More recently she has been sent up again from a social worker with the story that she has become inattentive at school and failed to make any progress. Examination revealed no physical signs, but an electroencephalorgan showed long runs of petit mal activity during the whole of which time there was clouding of consciousness. With adequate treatment by tridione, this girl has made a very successful recovery.

The other group of patients with petit mal who show intellectual impairment were originally described by Hunt at the New York Neurological Society in 1922, under the term "static seizures." These are now commonly known as "akinetic epilepsy" and some divergence of opinion exists about this condition. Penfield considers that akinetic epilepsy is a variety of the true petit mal triad; in fact, he does not distinguish between a myoclonic epilepsy and the akinetic, believing that the latter are due to a massive myoclonic jerk. A variety of these are called "salaam" attacks since there is a sudden loss of postural tone in the head, the arms flying up into the air. If these salaam attacks do in actual practice belong to the group of true petit mal, there are certain features which are surprising. In the first place, these attacks are very resistant to all forms of treatment. In the second place, the electroencephalogram is somewhat unusual since instead of there being the classic 3 c/s waves and spike, as described, there are long runs of either 3 c/s waves, with or without the spikes interjected at intervals, or there may be the 2 to 2½ c/s petit mal variant of the wave and spike phenomenon. Lennox, discussing this, decided that it was not an immature variant of 3 c/s waves but was much more commonly associated with underlying organic disease. The third feature of these children is that the attacks are not infrequently accompanied by some degree of intellectual impairment, and there is much more apt to be a history of encephalitis, anoxia, or birth injury in these cases than there is in the true petit mal as characterized by a momentary absence. The prognosis in these children is not good and much further study is needed; but, again, it seems likely that both the deterioration and the epilepsy are the result of underlying organic brain disease, and the frequency of the attacks is not responsible for the impairment which takes place.

In support of this concept of epileptic deterioration are the detailed statistical studies of Lennox published in the last decade. He finds that only 54 per cent of epileptics with coarse brain injury have normal mentality compared with more than 67 per cent of the so-called "essential" group. Further, he believes that the more severe the mental impairment the larger the percentage of patients who have had a brain injury. Again, he finds that the average IQ in cases of acquired epilepsy is ten points lower than with genetic epilepsy. And one further statement he makes is significant, that the onset of seizures in early life is far more significant from the point of view of deterioration than the actual period during which seizures have occurred, and we have seen that there are many organic causes in early life responsible for both the seizures and the deterioration.

The next group consists of cases of psychomotor epilepsy, usually, but not always, associated with a demonstrable electroencephalographic focus in one or other temporal lobe. It has been frequently commented on that these patients are difficult, hostile, suspicious and sometimes frankly paranoid and that these disturbances may be associated with evidence of intellectual impairment. Indeed, this aspect of the situation may so overshadow the seizures in clinical importance that diagnostic difficulties arise. Some of these difficulties may be illustrated by the following case history. This was a man of 26 years of age who had been discharged from the Services having had a period in a mental hospital, diagnosed as a paranoid schizophrenic. He was first seen because he had had one generalized epileptic seizure. There were no physical signs on examination. The man had a somewhat odd, withdrawn, suspicious personality, and there was evidence from his wife that his behavior had deteriorated

in many ways in recent months. Not only had he threatened to attack her, but he had quite irresponsibly given up several good jobs, had come into trouble with the police on several occasions, and from time to time was found wandering around the streets, confused, and often aggressive. There was no doubt of the existence of epilepsy since a generalized convulsion was witnessed. One day he was noticed to be sitting absolutely immobile. This continued for about eight hours during which time he did not speak or respond in any way to any stimuli. Examination showed no organic physical signs, but he appeared to be in a catatonic stupor. His limbs could be placed in any position without his moving them in the slightest, the posture would be maintained indefinitely, and he sat there quite mute and unresponsive. Later, he had a generalized epileptic seizure; and on recovery from the ensuing, confusional state, he was improved. Subsequently, he was committeed to the mental hospital, where it is said that he is showing some schizophrenic deterioration.

There seems no reason to doubt that schizophrenia and epilepsy may occur in the same patient and that the apparent deterioration, which may take place in some cases of temporal lobe epilepsy, is due to a concommitant schizophrenic process and not to an organic intellectual impairment. The electroencephalogram alone provides no information of diagnostic significance since the schizophrenic, particularly the recurrent catatonics who show episodes of disturbed antisocial conduct, may have spike potentials in the temporal lobe with or without a posterior temporal slow wave focus.

Hill has noted the occurrence of paroxysmal grouped spikes in about 8 per cent of schizophrenics, particularly the recurrent catatonics, while Gastaut has demonstrated that photic stimulation increases the incidence and may give rise to myoclonic jerks or a generalized seizure. What relationship exists between paroxysmal behaviour disturbances, psychomotor epilepsy, and schizophrenia remains to be elucidated.

The next group of patients with apparent deterioration are so well known that they are mentioned only in passing. Reference is made to those cases due to the excessive or irregular use of drugs, orthodox or unorthodox, and the fact that withdrawal of those drugs suddenly may lead to mental disturbances. Similarly, the importance of psychological and environmental factors in the relationship between the patient and his disease has been so much stressed in recent years that no one is likely to forget these aspects.

Finally, there comes the question of intellectual deterioration, as a direct result of the recurrent seizures. That this may occur cannot be denied on the evidence here presented; but, nevertheless, it is a diagnosis which should be made only after the most careful consideration of the factors mentioned. There is, perhaps, a small group of patients in whom the attacks are not easily controlled, occur frequently, and are accompanied by a prolonged cyanosis. In these cases, the repeated anoxic insults may cause irreversible neuronal damage. But even here, if the attacks can be controlled, the resultant improvement in behaviour and intelligence suggests that the deterioration is due to a reversible neuronal exhaustion. How dangerous is a diagnosis of epileptic deterioration, with all that that implies prognostically, may be illustrated by the case of a lady now aged 47. At the age of 41, she was seen with a story of generalized convulsions for fifteen years, occurring three to four times a month with many minor seizures of the psychomotor variety. At this time, the examiner noted that he believed the major part of the patient's symptomatology could be ascribed to deterioration consequent on the recurrent seizures. Prognosis was noted as eventually complete deterioration with institutionalization. However, at this time, she was seen by a psychiatric colleague who commented that he was impressed by the schizoid aspect of the patient's personality, despite the presence of epilepsy and deterioration. Under his guidance, she was encouraged to change both her religion and her lover. Since then, she has been employed, still has attacks from time to time, but there is no intellectual impairment in the last seven years.

*Volvulus of the Right Colon**

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JOSEPH G. RILEY, M.D., AND
SAMUEL L. PAINTER, M.D.
Albuquerque, New Mexico

THIS is the report of a case of volvulus of the right colon undergoing detorsion during radiological examination. Volvulus of the right colon is being diagnosed clinically with greater frequency due to recognition of the roentgenological picture it produces (Fig 1). This has resulted in a marked reduction in mortality of this lesion because of prompt treatment. In the usual case surgery is performed immediately after the diagnosis is established. However, within the last year, cases have been reported in the radiological literature of reduction (detorsion) of volvulus of the right colon during the performance of a diagnostic barium enema. In addition, one case of detorsion reported was achieved by placing the patient in the knee chest position.

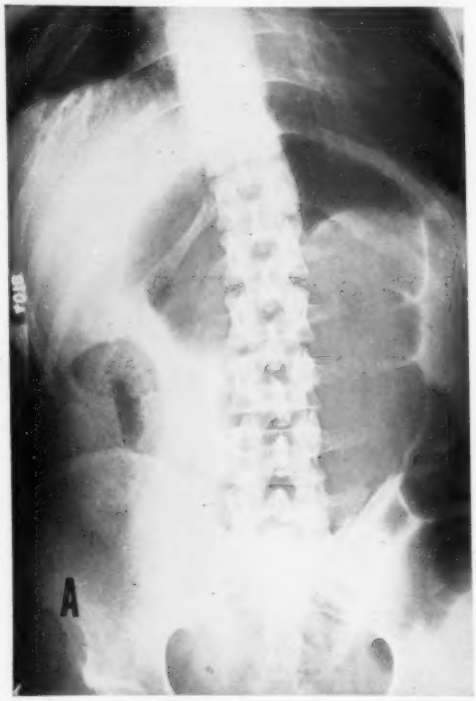


Fig. 1A. Pre-operative scout film of abdomen. A greatly dilated single loop of colon is seen extending from the level of L_5 to the diaphram. This represents the greatly dilated cecum and adjacent portion of ascending colon. The site of probable volvulus is indicated by an arrow.

CASE REPORT

G. W., white female, aged 21: The patient was well until 1:00 a.m. December 7, when she developed abdominal pain of sufficient severity to cause her to present herself at the emergency room of the hospital two hours later. At the time she was first seen the pain was in the right lower quadrant and peri-umbilical regions. There was slight spasm in the right lower quadrant but no rigidity and no rebound tenderness. Rectal examination was negative.

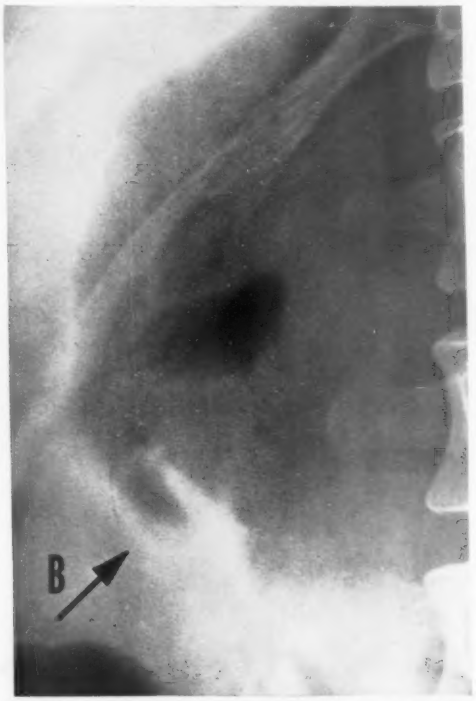


Fig. 1B. Enlarged view of probable site of volvulus. Surgery was performed, and a volvulus of the right colon of at least 360° was released. The hypermobile cecum was then sutured to the right lateral peritoneal wall in the pelvis. Uneventful recovery.

*From the Lovelace Clinic, Albuquerque, New Mexico.

As has been pointed out by others, the term "volvulus of the cecum" is a misnomer since in every case part of the ascending colon also participates in the twist. The term volvulus of the right colon is therefore preferable.

The blood count was:

Red blood count	4.5
Hemoglobin	12.7 gms.
White blood count	7,350
Segs	55%
Eosinophiles	1%
Lymphocytes	37%
Monocytes	7%

The count gradually rose to 10,000 white blood cells and 87 per cent segs in the next twelve hours.

The urine was negative. Pelvic examination revealed no abnormalities. Enemas were effective with passage of a large amount of hard stool. The patient vomited twice during the twelve hour period of observation. The pain persisted during the day with moderate relief afforded by narcotics. Twelve hours after admission the patient was examined radiologically.

The initial x-ray examination consisted of a scout film of the abdomen. It showed a dilated loop of colon arising in the mid-pelvis and extending across the mid-line to the left mid-abdomen. Very small amounts of gas were present in the rest of the colon and in the stomach. The dilated loop of colon was in close contact with a collapsed segment of colon in the right lower quadrant. A tentative diagnosis of volvulus of the right colon was made.

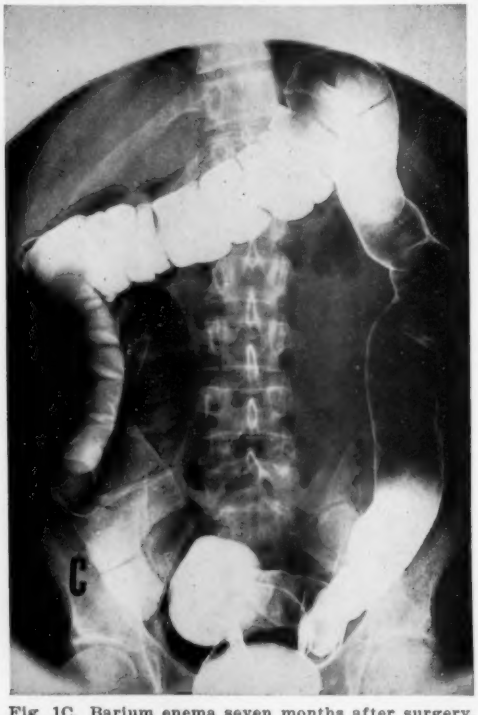


Fig. 1C. Barium enema seven months after surgery, showing filling of the entire colon. The right colon is redundant. The cecum lies low in the pelvis.

A barium enema was administered. It passed freely to a point in the mid-ascending colon. There it stopped abruptly and the patient complained of severe pain. The dilated loop of colon which did not fill with the enema was plainly visible, slightly displaced from its former position to the right, by the barium filled left colon. (The enema was started with the patient in the supine position, but during its administration the patient was moved into the prone and right lateral decubitus positions.) Following evacuation prone and supine films were taken. These films showed the colon to be partially empty. The barium stopped abruptly to the right of the mid-line adjacent to the dilated loop of colon which did not fill with barium. This dilated loop changed in position after evacuation. On the prone post-evacuation film a twisted appearance of the colon mucosa was visible at the proximal end of the barium column, the point of volvulus.

In order to verify the diagnosis of volvulus of the right colon additional barium was given by enema. During the period of fluoroscopy it was noted that barium now passed in an irregular fashion beyond the area of volvulus and began to fill the previously non-filled distended loop. The patient was again asked to evacuate the colon, and in this post-evacuation film only a

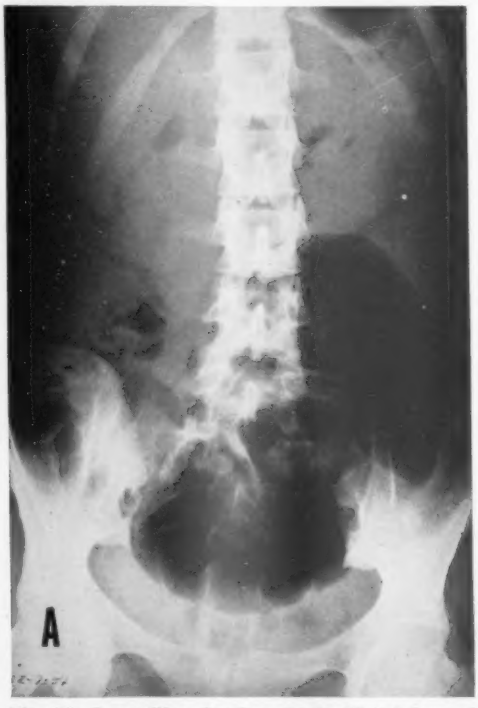


Fig. 2A. Scout film showing single dilated loop of colon, rising out of the pelvis, crossing the mid line, and ending in the left mid abdomen. This represents the dilated obstructed cecum and ascending colon, proximal to the volvulus.

small portion of the right colon remained which was not filled with barium.

More barium was given and the entire colon filled. The cecum was situated low in the pelvis in the mid-line. Thus, without intention, we had reduced a volvulus of the right colon of about sixteen hours' duration. It probably was twisted less than 360 degrees.

Discussion

It would therefore seem that judicious use of barium enemas and special posturing positions might be tried in cases of volvulus of the right colon. The barium enema is usually part of the diagnostic procedure, and may in some instances be an effective therapeutic measure. Neither procedure will be effective in some cases because of the degree of torsion. The enemas should be used with caution where there is evidence of circulatory disturbance in the obstructed gut.

Following non-surgical reduction the patient must be carefully observed as the process is apt to recur. Surgical fixation of the abnormally mobile cecum and ascending colon might be done as an elective procedure, because of the tendency of this type of volvulus to recur.

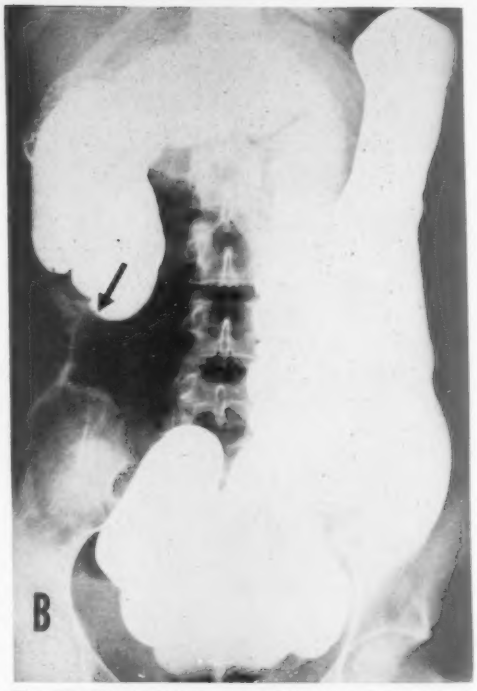
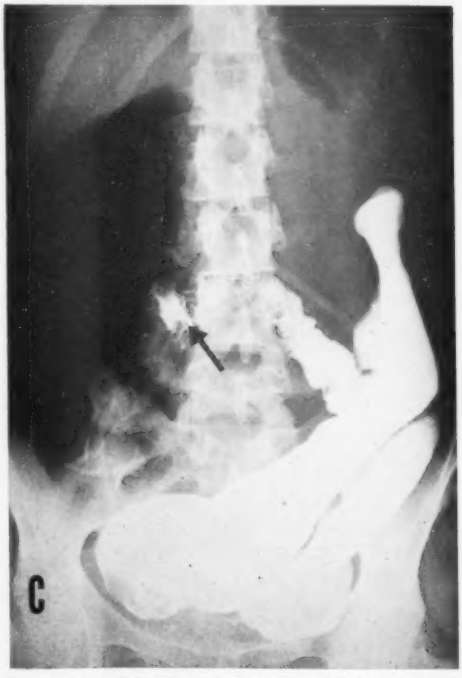


Fig. 2B. First barium enema showing abrupt termination of barium column at site of volvulus (arrow).



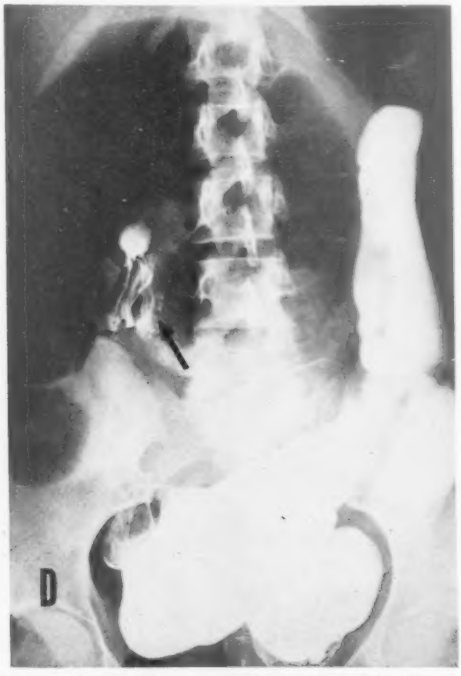


Fig. 2C and 2D. Films following partial evacuation of barium enema. Site of volvulus indicated by arrow.

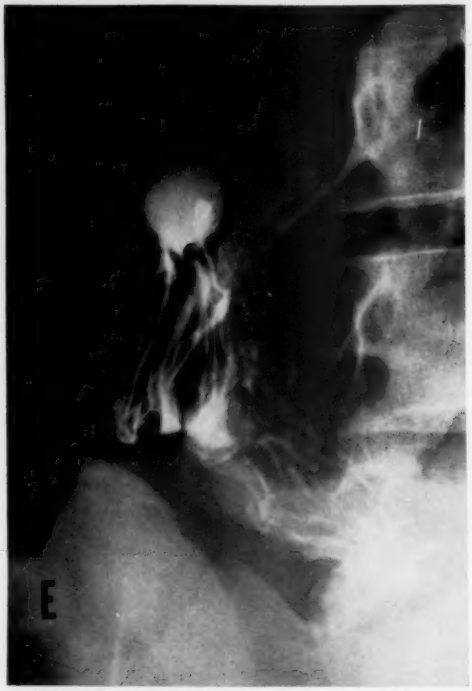


Fig. 2E. Enlarged view of site of volvulus.

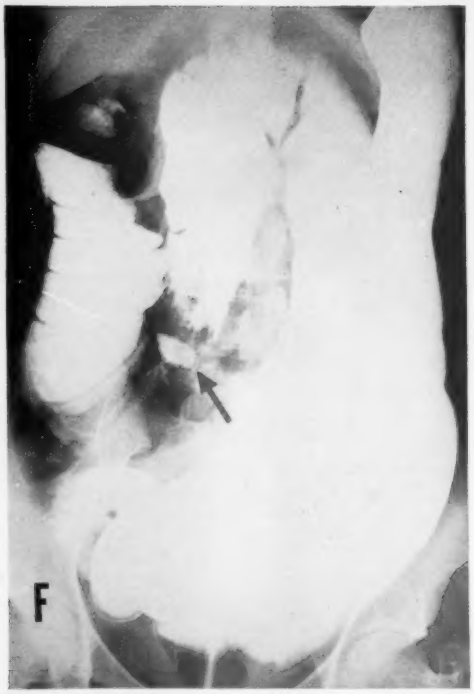


Fig. 2F Film following second barium enema. The barium is seen passing through the site of volvulus (arrow).

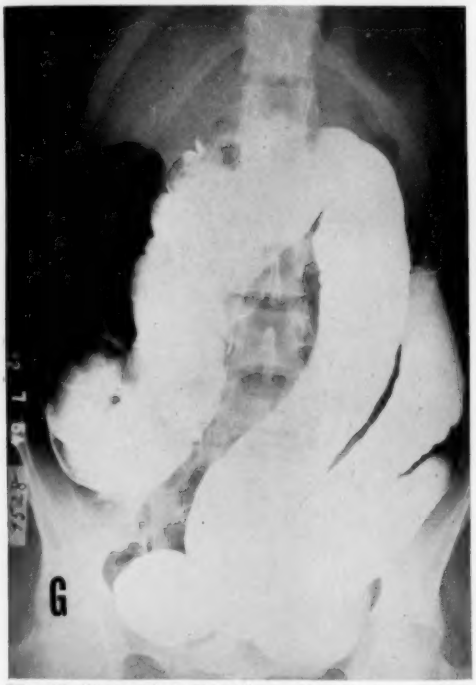


Fig. 2G. Evacuation film after second barium enema. Only a small portion of the left colon remains free of barium.

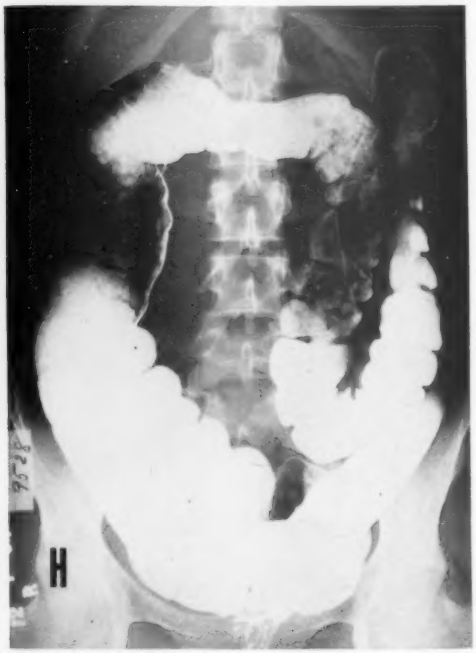


Fig. 2H. Film following third barium enema. The entire colon is filled. The dilated cecum lies low in the pelvis in the mid-line.

Multiple Foreign Body Ingestion*

B. Gitlitz, M.D., and R. E. Kunkel, M.D.
Thermopolis, Wyoming

FOREIGN body ingestion among children and mental patients is not infrequent. Review of the literature reveals many instances of metallic bodies in the G.I. tract, but the objects usually are few in number in individual cases and many patients cited are infants or young children. The ingestion, however, of one-hundred-one (101) nails, ranging from six to tenpenny, by an 85-year-old senile, over a long period of time, constitutes a case which is both interesting and unique.

CASE REPORT

Mrs. N. was an 85-year-old white female, resident of a home for the aged. She had been a patient there for three and one-half years without known contact for obtaining nails or similar items. Although senile and cachetic appearing, she was able to care for herself and had no complaints referable to the G.I. tract until January, 1953, when she complained of abdominal pain. This was treated successfully with enemas and casyllium. A second episode occurred in March, 1953, with similar results. Her condition was apparently good until August, 1954, when she vomited greenish liquid. She was first seen by us in September, when she again complained of non-localized abdominal pain and, shortly thereafter, passed a large, bloody stool. Following this, her B.P. quickly dropped to 84/60. She was treated with vasopressors and i.v. infusions of whole blood and dextran. At that time, physical examination revealed cachexia, shock, and generalized abdominal tenderness. After stabilization of blood pressure at 130/76, she was transferred to Memorial Hospital for x-rays and further therapy.

Upon admission, her hemoglobin was 7.2 gms.; rbc., 2,530,000; wbc., 14,450; and urinalysis, negative. Barium enema on September 29, 1954, revealed three distinct clumped masses of radiopaque metallic foreign bodies apparently located in the stomach, cecum, and rectosigmoid (Fig. 1).

She received multiple transfusions of whole blood, supplemental vitamins and high caloric feedings and responded well. By October 5, 1954, her hemoglobin was 13.6 and, since it was felt that the foreign body ingestion probably had occurred over one year previously, she was scheduled for laparotomy October 8. A pre-op. flat plate (Fig. 2) showed the objects to be moving down the G.I. tract. Accordingly, surgery was postponed for a more opportune moment and supportive therapy continued. Innumerable pus cells appeared in the urine but the patient responded well to gantrisin medication.

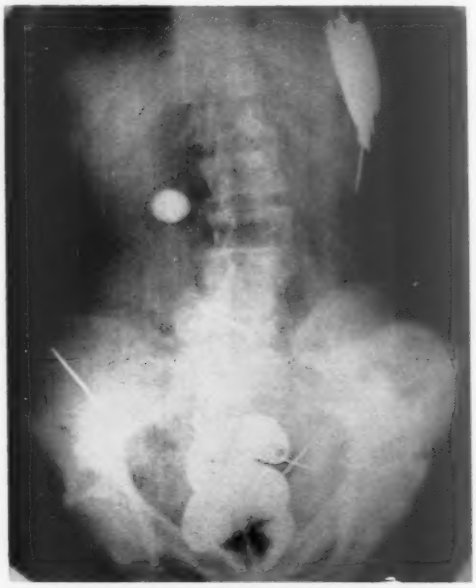


Fig. 1. Clumps of nails in stomach, cecum, and rectosigmoid.

Mrs. N. did well for about two weeks but then again began to pass red blood per rectum. On October 26, 1954, after repeat x-ray (Fig. 3), laparotomy was performed under local procaine anesthesia, the patient receiving sodium amytal 250 mgm. i.v. twice during the three and one-half-hour procedure. Through a midline in-

*From the Thermopolis Clinic, Thermopolis, Wyoming.

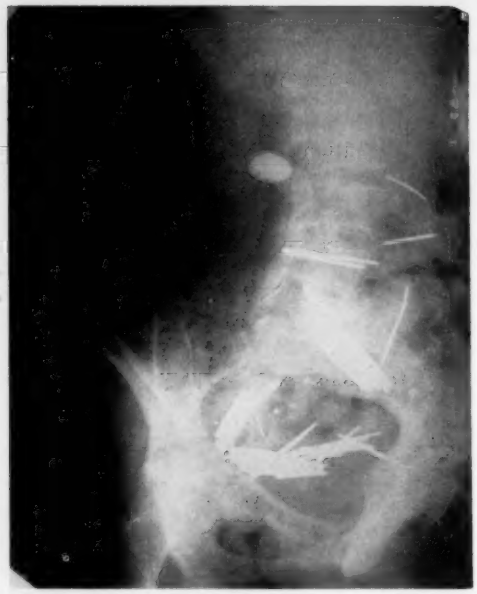


Fig 2. Objects moving down the gastrointestinal tract.

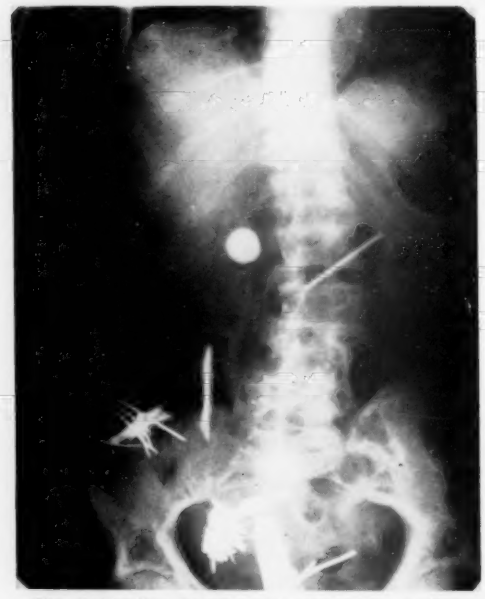


Fig. 3. Further progress of the foreign bodies.

cision, the abdomen was entered and a dense network of adhesions encountered and divided. A mass of metallic bodies was palpated in the ileum about 40 cm. proximal to the cecum. A longitudinal incision was made in the bowel wall and numerous nails removed from their imbedded positions. The incision and nail perforations were closed. Two other similar masses were removed in like fashion from their positions, 15 cm. respectively above and below the first. A fourth mass was extracted from its impacted position at the ileo-cecal junction and a fifth clump removed from that part of the ileum which was bound down in the pouch of Douglas by adhesions. A thick mass of adhesions between the bladder and ileum was not disturbed since ninety-eight nails had been removed (Fig. 4), and the patient was in poor condition, her blood pressure being 64/42 and pulse 120. The wound was closed with through and through silk sutures. Throughout the procedure, she received whole blood, i.v. fluids with levophed, and i.m. wyamine.

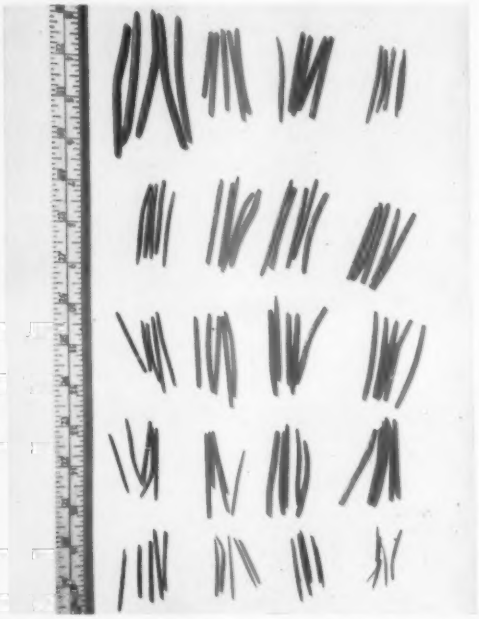


Fig. 4. Ninety-eight nails removed by laparotomy.

Postoperatively, she was placed on a regimen which included oxygen with alevaire, intravenous fluids, vasopressors, and Wangansteen suction through an M-A tube. Her B.P. stablized at 90 to 100 systolic, and she moved about fairly well in bed. By October 29, 1954, her B.P. was 134/74 and hemoglobin was 11.25. Antibiotics and parenteral fluids were continued. A postop. flat plate of the abdomen revealed three nails still present.

By October 30, 1954, she was progressively more alert and her hemoglobin was 12.2. Fluids by mouth were begun October 31, 1954, and tolerated well. By then, the patient was able to speak to her daughter. There was no gross rectal bleeding after November 1, 1954. By November 3, 1954, it was possible to begin clamping off the M-A tube at intervals. This was well tolerated. The patient meanwhile re-

ceived supplementary parenteral potassium in addition to high caloric feedings p.o. and remained alert.

On November 5, 1954, Mrs. N. had a rapid gush of dark red blood per rectum and suddenly went into shock with a B.P. of 76/40. She received whole blood, fluids, vasopressors, and her pressure came up to 100/80. Parenteral therapy was continued but the patient again developed hypotension and finally expired at 12:15 a.m. November 6, 1954, eleven days postoperatively.

Postmortem examination showed no evidence of gross peritoneal contamination. One of the remaining nails had penetrated the bladder wall and was surrounded by old dense adhesions. The other foreign bodies were imbedded in the wall of the ileum. The bowel incisions had all healed well and the abdominal wound showed no evidence of disruption. Death was attributed to gastrointestinal hemorrhage and inanition.

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Minimal Tetanus Intoxication

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TEXTBOOKS of medicine tend to present tetanus as a severe intoxication demanding extensive intense effort on the part of the practitioner, nurse, etc., to save the lives of 50 per cent of cases. The occurrence of minimal and minor cases are not comprehensively reported. So, what appeared to be such a case is here described.

CASE REPORT

Mrs. J. H., a 39-year-old white woman, was seen first on November 9, 1954. On the previous day she had been bitten by a dog which her husband had recently acquired at the city pound. She presented an army type immunization record which showed that she had had a regular series of three tetanus toxoid shots in 1944, and a booster in 1945, all while she was serving in the A.R.C. Since 1945 she had had no booster of any sort. She gave a history of having reacted violently with "tremendous hives" to a tetanus shot administered to her as a child. There was history of a skin test for horse serum sensitivity in 1944 which was allegedly negative. However, this episode was not well understood by the patient and was sufficiently vague that, considering the superficiality of the wounds and the patient's assertion that she had washed them well, 1.0 c.c. of tetanus toxoid, rather than antitoxin, was administered. The wounds consisted of a scratch on the left buttock and a very small and apparently shallow puncture on the left posterior thigh.

Mrs. H. was next seen on December 8, 1954, at which time she complained of "stiffness in the jaws." She had felt "lousy and fluish" for four days. There was lower, substernal, intermittent pain which was worse on motion.

Physical examination at this time revealed a generalized increase in deep reflex response and a positive Chvostek sign, bilateral. She had no fever, no tachycardia, and no real trismus.

She was placed on phenobarbital and bedrest, being counseled to have a minimum of stimulation in the way of noise, light, etc. On December 9 she described hamstring tension. The tension thereafter proceeded through one muscle group after another as listed below, leaving one group and appearing in another on a day to day basis:

Dec. 9—hamstring tension.
Dec. 10—tension in lower back.
Dec. 11—tension in lower rib cage.
Dec. 12—tension in pectoral muscles.

Dec. 13—tension in shoulders and back of neck.

Dec. 14—tension in hands, fingers, and arms.

On December 21, at which time the tension in the hamstrings was noticed for the second time, tension in the gastrocnemius muscles was present.

Fever was not noted during this period but fatigue and easy fatiguability on the slightest exertion was very marked. She also was aware of dyspnea when tired. On January 3, 1955, the tensions previously noted had largely given way to migrating muscle aches. She described the jaw muscle ache "as if she had had braces tightened or had been subjected to a long dental visit." Simple heat afforded a good measure of relief. On January 9 she said, "When I laid on my stomach, I felt as if my legs wanted to pull up in the air." On January 10, "I felt as if someone had stuffed a rod up my back and a band around my middle."

About this time a decrease in the fatigue became apparent, and the patient was allowed to be up and around the house. On January 10 the hyper-reflexia was noted to have subsided a bit although still present, and only on the right could a slight Chvostek response be elicited. On January 30 all reflexes were normal and the patient admitted no residual stiffness nor tension nor fatigue.

Comment

We believe that this was a case of minimal tetanus intoxication in which previous active immunization together with the anamnestic response to the booster dose of tetanus toxoid, and perhaps, to the tetanus toxin, afforded a high degree but not complete protection. The long incubation period of about four weeks and the slow development of symptoms were reassuring and left only the questions of when and at what level the disease would reach a peak. The possibility that these symptoms and physical findings might have psychic origin and represent a form of hysteria was entertained. However, though initially apprehensive, the patient at no time appeared excited, nor was there ever present any hyperventilation to account for the reflex abnormalities. We, therefore, feel that this possibility may be ruled out.

A further point of interest is the apparent adequate protection of booster doses of tetanus toxoid even as much as ten years after the last active immunization.

SHUT-IN CHILDREN USE MAIL TO GO TO BALTIMORE SCHOOL

Home-bound children throughout the United States, unable to attend regular schools because of crippling or confining diseases or physical conditions, attend a Baltimore school by mail.

They go to the Calvert School, an unendowed non-profit institution that for almost fifty years has given an elementary school education to children who cannot attend regular schools. Calvert's courses run from kindergarten through the ninth grade and are accredited by the State of Maryland.

This unique correspondence service began when visiting teacher programs of the public schools were all but unknown. As public interest in the education of the home-bound increased, with a parallel increase in visiting teachers, Calvert's role has been to serve those children beyond visiting range. Officials of the school make it plain that they are not in competition with public school systems.

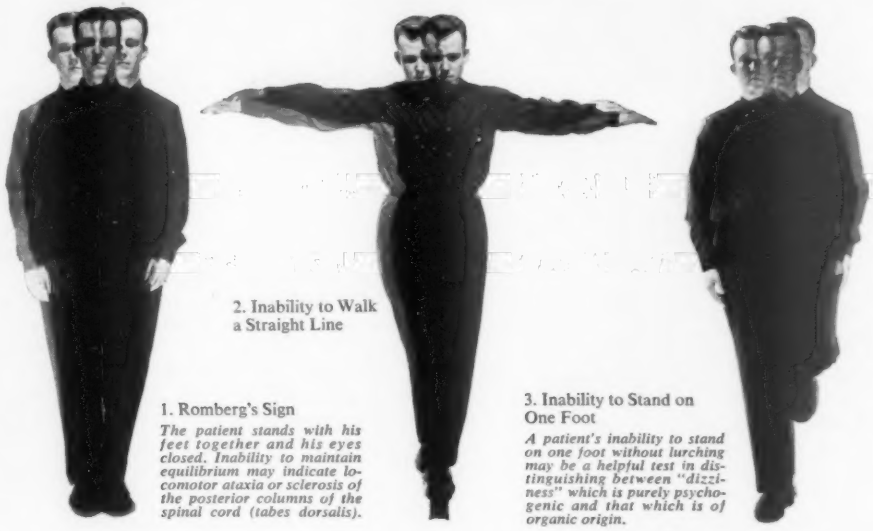
According to Edward Brown, Calvert's headmaster, children with heart conditions make up about 20 per cent of Calvert's shut-in students. Polio patients account for about 15 per cent, chronic asthma for about 10 per cent, and eye, ear and speech defects for about 15 per cent. Muscular dystrophy, cerebral palsy, diabetes and hemophilia are among the other causative factors affecting Calvert's home-bound students.

Although its home study courses are laid out for 160 "school days," Calvert suits the speed of learning to the capacity of the shut-in child; many take twelve months or longer to complete a course. Eight times during the course, a special lesson is prepared and sent to Baltimore for a grade and a detailed review by a Calvert faculty member. The letters that accompany this exchange frequently establish a closer relationship between teacher and pupil than is possible in the regular classroom. Calvert furnishes parents all necessary directions for supervising the home study.

When a Baltimore whooping cough epidemic in 1905 forced the Calvert Day School to close, the headmaster sent the lessons home with the pupils. This experimental home study system proved so successful that some parents of shut-in children in Baltimore asked for the service regularly. After some years of working only with the home-bound, Calvert extended its service to children living in isolated areas or living abroad where American schools were not available. Today there are 8,000 children in Calvert's world-wide student body.

Notes on the Diagnosis and Management of "Dizziness"

II. False Dizziness



1. Romberg's Sign

The patient stands with his feet together and his eyes closed. Inability to maintain equilibrium may indicate locomotor ataxia or sclerosis of the posterior columns of the spinal cord (tabes dorsalis).

2. Inability to Walk a Straight Line

3. Inability to Stand on One Foot

A patient's inability to stand on one foot without lurching may be a helpful test in distinguishing between "dizziness" which is purely psychogenic and that which is of organic origin.

False dizziness is a sensation of sinking or lightheadedness which is often of psychogenic origin. It should be distinguished from true "dizziness" or vertigo[1] in which there is a definite whirling, moving sensation.

Unsteadiness, lightheadedness and similar manifestations of false dizziness[2] may be psychogenic or the result of arteriosclerosis, hypoglycemia, drug sensitivity and general metabolic disturbances such as anemia and malnutrition. Hypertension is often the cause of these symptoms.

Psychogenic dizziness probably originates at the highest brain centers. It may be described as a sense of uncertainty with occasional mild lurching but not to the point of falling. In these patients there is no nausea, no disturbance of vestibular pathways and otologic and neurologic examinations are negative. The sensation is unaffected by head movement. Symptoms usually disappear[3] with complete rest.

Dramamine® has been found highly effective in many of the conditions already mentioned. Maintenance therapy with Dramamine will often keep the patient from becoming incapacitated by his condition.

Dramamine is also a standard for the management of motion sickness and is useful for relief of nausea and vomiting of fenestration procedures and radiation sickness and for relief of "true dizziness" of other disorders.

Dramamine (brand of dimenhydrinate) is supplied in tablets (50 mg.) and liquid (12.5 mg. in each 4 cc.). G. D. Searle & Co., Research in the Service of Medicine.

1. Swartout, R., III, and Gunther, K.: "Dizziness:" Vertigo and Syncope, GP *8*:35 (Nov.) 1953.

2. DeWeese, D. D.: Symposium: Medical Management of Dizziness. The Importance of Accurate Diagnosis, Tr. Am. Acad. Ophth. *58*:694 (Sept.-Oct.) 1954.

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SEARLE

National Affairs

Report of Delegates To the A.M.A.

The 104th annual session of the American Medical Association was held in Atlantic City, New Jersey, June 6 to 10, inclusive. In addition to the Delegates, their Alternates, and the officers of the Society, about sixty doctors and many of their families registered from the State of Colorado.

Colorado Headquarters were in the Ritz-Carlton Hotel and were open from the 4th through the 9th of June. Many Coloradans and former Coloradans, as well as friends of our Society, visited and enjoyed the hospitality of the Colorado group.

Mr. Harvey Sethman, our Executive Secretary, had assignments and duties in connection with committees concerned with public relations, the assisting of the A.M.A. committee making a national study of grievance committees, and the organizational activities of the Aces and Deuces group. Mr. John Pompelli of our staff was also on hand to help the Delegates, their Alternates, and members from our State.

On June 4, the Third Annual Medical Civil Defense Conference was held in the Rose Room of the Traymore Hotel. This was attended by Dr. James Perkins, our Constitutional Secretary, Mr. Sethman, and the Alternates and Delegates from Colorado. This conference was well attended; there were approximately 160 members present. One of the highlights of the program was a talk by Senator Estes Kefauver on "Civil Defense in the Federal Government." Senator Kefauver pointed out the importance of civil defense and the apparent lethargy on the part of the Government and the American people to accept civil defense in a serious manner. Our Government has appropriated $50,000,000 for the program, whereas the small nation of England has appropriated something like $200,000,000 for the program. Senator Kefauver did state that progress is being made.

There was an excellent panel on trauma and mass casualty care. A very attractive luncheon was served in the American Room of the Traymore Hotel from 12 until 2 o'clock, and the meetings were resumed in the afternoon. Three members from the Public Health Department outlined the civil defense responsibilities of the Public Health Service. The problem of radioactive fallout was discussed in some detail, and the potential dangers of the fallout were illustrated. Methods for handling contaminated food and water were discussed; apparently, radioactive particles can be washed off of a can of food, can be peeled away from fruit, etc. We all felt that civil defense was of sufficient importance that we in Colorado should do more toward civil defense planning in our State.

On Sunday, June 5, the Conference of Presidents and Officers of State Medical Societies was held at the Traymore Hotel. The meeting was well attended, and the Colorado group enjoyed it a great deal. One of the outstanding phases of this meeting was the talk by Senator Bricker concerning what his amendment should accomplish. We all felt that the doctors should lend Senator Bricker all the support within their power to pass this amendment which protects their freedom as well as the freedom of our whole country. Another feature of this program was the comment by Herbert Philbricht (the TV man) on some of his experiences while a member of the Communist Party as an F.B.I. undercover agent. Some of the workings of the Communist Party were disclosed, and Mr. Philbricht's theory as to the technic of brainwashing was discussed in some detail. There was also a paper on the practice of medicine in England since the doctors in that country became socialized. This was a very informative meeting, and the officers, Delegates, and Alternates came away greatly inspired and determined more than ever to keep medicine as it was.

The House of Delegates officially convened on Monday, June 6, at 10:00 a.m. in the Traymore Hotel. Dr. Harlan English of Illinois presented the preliminary report of the Reference Committee on Credentials. One hundred ninty-four out of a possible 196 Delegates or their Alternates were registered. Rev. Harvey M. Bennett, minister of the First Presbyterian Church of Atlantic City, pronounced the invocation. The Speaker of the House listed the Tellers, the Sergeants-at-Arms, and the Clerks of Election. The roll call was held and then a corrected copy of the minutes of the Interim Session held in Miami from November 29 to December 2, 1954, was approved.

The Board of Trustees' nominees for the Distinguished Service Award were presented to the assembly. Dr. Donald Balfour of Rochester, Minnesota, Dr. Daniel E. Elkin of Atlanta, Georgia, and Dr. Don R. Paul of New Haven, Connecticut, were the nominees. Their qualifications were read and the Delegates voted upon the one to receive the honor. Dr. Balfour received 136 votes, Dr. Paul received 36, and Dr.

Elkin received 24. The choice of the honored member of the medical society appeared to be a very popular one with the individuals attending the meeting.

The report of the Reference Committee on Rules and Order of Business was presented by Dr. E. L. Bortz, the chairman of this committee, who is from Pennsylvania.

The former presidents of the American Medical Association were introduced. Dr. Walter Bierring of Iowa, who was President in 1934, and who is an Honorary Member of our Colorado Society, gave a very inspiring talk. Other Presidents in attendance were Dr. Sensenich, Dr. Irons, Dr. Cline, Dr. Bauer, Dr. Edward McCormick and Dr. E. L. Bortz. The distinguished guests present were introduced to the assembly of Delegates. These included officers in ancillary positions, guests from foreign nations, etc.

The next order of business consisted of remarks by Dr. James R. Reuling, the Speaker of the House of Delegates. He pointed out some features of parlimentary procedure that would facilitate the conduct of the meeting and he thanked the group for the great privilege and honor of again being the presiding officer of the House of Delegates of the American Medical Association. Dr. Reuling then called attention to the responsibility of physicians to see that the social changes going on in the country are for the betterment of all the people and that they do not tend to become "socialistic." He also asked that we give careful and continuing attention not only to the economic problems of our patients but also to the economy of the Government at all levels. He stated that we should exert every effort to keep the body politic from becoming more seriously sick than it already is or perchance changing the American way of life so that it will die.

Dr. Reuling then appointed the Reference Committees. These are as follows: (1) Amendments of the Constitution and By-Laws; (2) Board of Trustees and Secretary, Reports of; (3) Credentials; (4) Executive Sessions; (5) Hygiene, Public Health, and Industrial Health; (6) Insurance and Medical Service; (7) Legislation and Public Relations; (8) Medical Education and Hospitals; (9) Medical Military Affairs; (10) Miscellaneous Business; (11) Officers, Reports of; (12) Rules and Order of Business; (13) Sections and Section Work; (14) Tellers; (15) Sergeants-at-Arms.

Dr. Louis Bauer, former President of the American Medical Association, reported on the progress of the American Medical Education Foundation. He was disappointed in the amount that they had received. Dr. Bauer then gave awards to individuals who were the heavy contributors to the AMEF and urged the Delegates to go home and encourage more extensive participation in this very worthy project.

The House then listed the former officers and members of the House of Delegates who had passed away during the past year. A silent tribute was paid to these individuals.

Dr. Walter B. Martin, the President of the American Medical Association, gave a supplementary report in the form of an address. Dr. Martin reviewed what he had learned during the past two years, since which time he had had the privilege of visiting many of the state and county societies and other medical groups. He stated that he has found that physicians as a rule are alert to their responsibilities not only as men of science but as citizens of their community, that they are becoming more and more concerned with the general welfare of not only their own areas but of all the social and economic aspects of medicine. Dr. Martin stated that American medicine has much in which it can take pride. He pointed out that the American Medical Association has opposed federal aid to medical education in any guise that would make possible federal interference or control a reality. He stated that we had spurned the numerous proposals that have been made and the plausible arguments that have been advanced by eager advocates of federal participation in the financing of medical schools. He stated that these arguments had not dispelled the justifiable fear that some degree of federal influence and control would follow federal financial aid. He did state, however, that these objections do not pertain to one-time federal grants to medical schools for new construction or for the reconstruction of old buildings. He stated that since the financial needs of medical education are real and urgent, other means are being sought and must be found for satisfying these needs. One of the greatest contributions that could be made to medicine and to the public by American physicians would be the swift and adequate financial support of medical education. Apparently, the response has been excellent in certain states, but these areas have been all too few.

Dr. Martin stated that the whole framework in which medicine is practiced has changed; whether we like it or not, we cannot have it otherwise. Science has placed a new bond upon us in our obligation to make these resources of modern medicine available to all of our people, regardless of the geographical and financial barriers. To accomplish this, our hospital system has rapidly expanded; more beds are available now and they are more widely distributed than ever before. Hospitals are better equipped and better staffed, but all of this has placed a greater financial burden upon our voluntary hospitals. This is properly a matter of as much concern to us as to our hospital administrators and Board of Trustees. This situation has led to a far greater utilization of hospital facilities, to the extent that in a period of twenty years admissions to hospitals have practically tripled. The cost has strikingly increased,

although this is largely compensated for by the quality of service available which shortens the hospital stay.

Dr. Martin pointed out that at the present time 103,000,000 Americans carry some form of insurance against the cost of hospital care. This is approximately 80 per cent of our insurable population. Voluntary health insurance has caught the imagination of the American people. This has been achieved without government initiative, aid, direction, or control. The success of this movement has been the result of medical encouragement and cooperation. Its future success depends upon our preventing abuses that will eventually weaken its effectiveness or even destroy it.

These changes in the pattern of medicine have necessitated frequently the utilization of physicians' services in hospitals on a contractual basis and in many areas have brought hospitals and physicians into conflict. The joint committee of the Board of Trustees of the American Medical Association and the American Hospital Association have met on many occasions in an effort to resolve this conflict. To be effective, both groups concerned should recognize the role of the modern hospital in our present day society on one hand and on the other the necessity of maintaining those conditions of medical practice in hospitals that are essential to the production of a constantly improving quantity and quality of medical care and the continued advancement of the science and art of medicine. The proper provisions for the orderly medical care of the noninsurable group is one of our most pressing necessities and a matter that should have the American Medical Association's continued attention.

Dr. Martin later pointed out that we are undergoing an industrial revolution that has changed us from a rural to an urban people. Fresh industrial hazards to the worker have developed, in addition to environmental hazards to the surrounding population. He stated that the demand for more comprehensive medical care to industrial groups certainly needs to be considered carefully; not only how well they will meet the realistic requirements of the industrial group but also their effect upon the quality as well as the quantity of care that will be available not only to these particular groups but to all of our people. He suggested that leaders of the industry labor groups and men in medicine should have their respresentatives sit down in an atmosphere of good will to discuss this mutual problem.

The Delegates were warned to be alert to poorly conceived and ill directed legislative proposals. He regretted that we had been brought into opposition with veterans programs and with representatives of the medical service of the Armed Forces. He believed that the just medical requirements of service-connected personnel or disabled veterans can be met and proper care of the dependents of service personnel provided without a continued and wasteful expansion of federal medical services.

Dr. Martin also pointed out that a twilight zone exists between the proper domains of public health and therapeutic medicine. More light should be shed upon this twilight zone, and he suggested that a series of conferences between the American Medical Association and representatives of public service agencies should be arranged. He stated that the future of medicine will be secure and can be as glorious as its past if we uphold the principles that have made it great today and that have made it one of the most beneficent forces that moves in this modern world.

The next order of business was the address of the President-Elect, Dr. Elmer Hess. Dr. Hess's talk was very inspiring. He emphasized that one of the greatest medical problems in the United States today is that of mental and emotional illness, because 50 per cent of all patients who come to physicians' offices have a mental or emotional disturbance along with their physical disability. This should be a concern to all practicing physicians. He felt that great numbers of mental patients could be returned to useful, productive lives if they received the proper medical as well as psychiatric treatment. It is very difficult to attain today because we have a system of understaffed and overcrowded institutions. Dr. Hess believes that this is a responsibility of the physicians and that through their state and county medical societies they can reawaken the interest of their communities in public and private mental institutions. They should encourage the public and private mental hospitals to seek the cooperation of the citizens in the areas where they are located. He suggested the physicians give one day a week to work in a state or county mental hospital near their homes and that these institutions retain young physicians on a part time basis as attending staff physicians. He believes that nonpsychiatric residency training in state mental hospitals should be expanded.

Dr. Hess pointed out the very serious medical problem facing us in the mental care of the low-income and no-income groups. He believes that it is the doctor's duty to work out something for these individuals. This is, however, the responsibility of the taxpayers in the local community. We as taxpayers have a double responsibility.

Dr. Hess was very much concerned over the highway death rate throughout the country. He believes that there are many license carrying motorists today who are temperamentally unfit to drive and should be weeded out. He asked the doctors all to go home and work with all their strength for tight restrictions on driver permits and more realistic laws to govern the conduct of our motorists.

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tabs. q. 6 h., p.r.n.

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He reminded everyone of the responsibilty concerning medical education, voluntary health insurance, industrial health, national defense, medical economics, and the never-ending fight against quackery. Dr. Hess opposed the doctor draft as being discriminatory. He recommended a program that would create special committees to work out a proper relationship between fees for various medical and surgical specialties and set up a public education campaign to increase the public's appreciation of non-surgical work, to encourage the various specialty boards to reappraise their regulations, and to discourage arbitrary restrictions by hospitals against general practitioners. Dr. Hess feels that this would minimize fee splitting and other abuses. He suggested that American Medical Association headquarters be moved from Chicago to Washington. Considerable discussion was heard on this matter, and it did not seem to be feasible.

Dr. Hess asked all of the Delegates to go back to their own communities and encourage more attendance of county society meetings and more active participation in the organizational affairs of the American Medical Association.

The Secretary, Dr. George Lull, then presented the brief point from which the order of business was directed to the supplementary reports of the Board of Trustees and Councils by Dr. Dwight Murray. The first among these was a citation to Dr. Sollman who has been very active in the Council on Drugs for many years.

Among these supplementary reports by the Board of Trustees, there was one concerning national legislation with medical implications and one on recording of scientific lectures. There was a resolution on the gentral practice of medicine, one on osteopathy, one on chiropractic education, one on professional liability, reorganizing of nursing committees, civil defense, guides for regents and mediation committees. There were resolutions on the use of the word "rehabilitation," a medical practice act brochure, directives concerning polio vaccine, our stand on it, and one on the Hoover Commission report. These were all assigned to the proper reference committees.

A report that seemed to be very important was one that a special committee of the House of Delegates presented, concerning general practice experience prior to specialization. The committee pointed out the advantages and disadvantages of general practice experience prior to specialization. The results of questionnaires previously reported at Miami were included in the report. The committee sent questionnaires to 9,600 certified specialists, 60 per cent of whom had had previous experience in general practice prior to becoming specialists and 40 per cent of whom had had no experience in general practice prior to certification. Ninety per cent of those who had had previous experience and 40 per cent of those who had had no previous experience in general practice prior to certification considered it valuable training and recommended it for a year or so. An average of 63 per cent of all certified specialists themselves believe that special general practice training is valuable, but the committee believes that such radical action at this time would be premature and unwise because it would create undue and unnecessary temporary hardships not only for young doctors but for many hospitals, for the Armed Forces, and for our whole medical teaching and training system. The committee was convined that they do need a re-evaluation of our whole medical training program, because many young doctors are missing a great deal of the art of medicine and the public is the loser together with the young doctor. They recommended that all changes should be made in an orderly and well planned manner. They maintain that a great deal can be learned by physicians who actually visit patients in the home. The many problems were pointed out, and the committee set forth a plan to correct this trend away from personal contact with the patient. This was a long report and was approved. The Reference Committee suggested that it be sent to the Board of Trustees for further action.

The details of these reports are in the various handbooks and will appear in the Journal of the A.M.A. at a future date.

The next order of business was the introduction of resolutions. Eighty-one resolutions were introduced and referred to the appropriate reference committee by the Speaker of the House. All official members of the Colorado Delegation attended every meeting of the House of Delegates. On Tuesday morning, June 6, a breakfast meeting was held in the Colorado Room, and all officers and interested persons met for the purpose of covering the reference committees that we thought were vital to the State of Colorado.

Among the interesting and important resolutions and their disposition were the three resolutions introduced by the Colorado State Medical Society. These pertained to automotive safety, to activities of the Joint Commission on Accreditation of Hospitals, and to the identification of anesthetic agents.

Our resolution pertaining to automotive safety was as follows: "Be it resolved that the American Medical Association urge all state motor vehicle departments to provide for the recording on original accident reports as to whether the car involved was equipped with seat belts and whether the person involved had the belt fastened at the time of the crash, and be it further resolved that the American Medical Association communicate this resolution directly to the motor vehicle department of the states and territories." This resolution was referred to the Committee on Hygiene, Public Health, and

Industrial Health who heartily approved the resolution and added words broadening it to include the police department and other safety organizations in each state. This resolution was passed unanimously by the House of Delegates.

Our resolution concerning the identification of anesthetic agents resolved essentially that the Council on Pharmacy and Chemistry be requested to use its influence and offer its assistance to manufacturers of procaine and such related substances as are used for injection as anesthetic agents to adopt, if possible, a uniform, distinctive, and harmless dye to be added to such agents to make them positively and universally identifiable by color. This resolution was also referred to the Committee on Hygiene, Public Health, and Industrial Health who heard several individuals on this resolution. They disapproved it because it had been tried before and it was impractical for the manufacturers to comply with this request.

The resolution concerning the activities of the Joint Commission on Accreditation of Hospitals was as follows: "Be it resolved by the House of Delegates of the American Medical Association that the Council on Medical Education and Hospitals is hereby directed to undertake a critical evaluation of the Joint Commission's current standards of accreditation and of its current methods of inspection. (This evaluation was to include a study of these problems in small metropolitan areas and in the rural areas of the nation as well as in the large metropolitan centers.) Be it further resolved that this evaluation by the Council be reported to this House of Delegates at the 1955 Interim Session with recommendations whereby the American Medical Association may bring about the realization of more equitable hospital accreditation by the Joint Commission." This resolution, together with at least six others of a similar nature, were referred to the Reference Committee on Medical Education and Hospitals. These were discussed at length by the Delegates and other members before the Reference Committee. There seemed to be a rather widespread criticism of the methods employed by the Joint Commission on Accreditation of Hospitals in handling various matters at their disposal. Dr. Hendryson and Dr. Perkins both appeared before this committee in support of our resolution. The Reference Committee adopted all of these proposals, and the final resolution agreed almost word for word with ours except that it provided that a seven-man committee be appointed by the Speaker of the House to investigate this Joint Accreditation Commission.

It was a very interesting hearing and was attended by all of the Colorado group, and we were proud that they chose our resolution as a model for the disposal of this very important problem.

To close this report, we add a summary of actions of the House of Delegates as supplied to us only some forty-eight hours after the adjournment of the Atlantic City Session by the staff of Dr. George Lull, Secretary and General Manager.

KENNETH C. SAWYER, M.D.,
Delegate, for himself and the
entire Colorado Delegation.

Osteopathy, medical ethics, medical practices, intern training, hospital accreditation and polio vaccine were among the major topics of discussion by the House of Delegates at the American Medical Association's 104th Annual Meeting, held June 6-10 in Atlantic City.

Elected unanimously as President-Elect for the coming year was Dr. Dwight H. Murray, general practitioner of Napa, California, who has been a member of the A.M.A. Board of Trustees for ten years and its chairman for the past four years. Dr. Murray will become President of the American Medical Association at the June, 1956, meeting in Chicago, succeeding Dr. Elmer Hess of Erie, Pennsylvania. Dr. Hess took office at the Tuesday evening inaugural program in Atlantic City's Convention Hall.

The House of Delegates voted the 1955 Distinguished Service Award of the American Medical Association to Dr. Donald G. Balfour, surgeon, author and researcher of Rochester, Minnesota, for his outstanding contributions to medicine and humanity. Dr. Balfour has been with the Mayo Clinic since 1907 and he also has been associate director and then director of the Mayo Foundation for Medical Education and Research. His son, Dr. William Balfour, accepted the award for his father at the Tuesday inaugural program.

The Osteopathic Issue

The Reference Committee on Medical Education and Hospitals submitted two reports after considering the recommendations of the Committee for the Study of Relations Between Osteopathy and Medicine. The minority report, which was adopted by the House of Delegates, said:

"One member of the Reference Committee was completely satisfied that an appreciable portion of current education in colleges of osteopathy definitely does constitute the teaching of 'cultist' healing, and is an index that the 'osteopathic concept' still persists in current osteopathic practice. Since he cannot with good conscience approve the recommendation that doctors of medicine teach in osteopathic colleges where 'cultism' is part of the curriculum, he respectfully makes the following recommendations to the House of Delegates:

"(1) That the report of the Committee for the Study of Relations Between Osteopathy and Medicine be received and filed; and that the Committee be thanked for its diligent work, and be discontinued.

"(2) That if and when the House of Delegates of the American Osteopathic Association, their official policy-making body, may voluntarily abandon the commonly so-called 'osteopathic concept,' with proper deletion of said 'osteopathic concept' from catalogs of their colleges; and may approch the Trustees of the American Medical Association with a request for further discussion of the relations of Osteopathy and Medicine, then the said Trustees shall appoint another special committee for such discussion."

The majority report of the Reference Committee, which was rejected by the House, made the following recommendations:

"Your Reference Committee after a study of the report of the Committee for the Study of Relations Between Osteopathy and Medicine, and the study of other evidence submitted is not completely satisfied that the current education in colleges of osteopathy is free of the teaching of 'cultist' healing.

"In view of the desire to elevate the standards of teaching in colleges of osteopathy, your Reference Committee recommends approval of the recommendation of the Committee that doctors of medicine may accept invitations to assist in osteopathic undergraduate and postgraduate medical educational programs in those states in which such participation is not contrary to the announced policy of the respective county and state medical associations. Such teaching services would be ethical.

"Your Reference Committee approves the recommendation of the Committee that the House of Delegates request state medical associations to assume the responsibility of determining the relationship of doctors of medicine to doctors of osteopathy within their respective states or request their component county societies to do so.

"Your Reference Committee recommends that a committee be appointed at the discretion of the Board of Trustees to confer with representatives of the American Osteopathic Association concerning common or inter-professional problems on the national level."

Change in Medical Ethics

The Reference Committee on Miscellaneous Business dealt with ten resolutions concerning the dispensing of drugs and appliances by physicians. The following committee report was adopted by the House:

"A great many individuals appeared before your Committee in the interest of several resolutions submitted to it requesting amendment to or deletion of Chapter I, Section 8 of the Principles of Medical Ethics, and the bulk of your Committee's time was spent on this very important and complex matter.

"With reference to this problem, the following resolutions were considered: Nos. 7, 12, 16, 18, 22, 35, 39, 58, 62 and 73.

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of sodium retention
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$4,500,000 ASSETS
$22,500,000 PAID FOR BENEFITS

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"Your Committee recommends that no one of these resolutions be adopted as submitted but does recommend deletion of Section 8, Chapter I of the Principles of Medical Ethics, which now reads:

'Ownership of Drugstores and Dispensing of Drugs and Appliances by Physicians

'Sec. 8.—It is unethical for a physician to participate in the ownership of a drugstore in his medical practice area unless adequate drugstore facilities are otherwise unavailable. This inadequacy must be confirmed by his component medical society. The same principle applies to physicians who dispense drugs or appliances. In both instances, the practice is unethical if secrecy and coercion are employed or if financial interest is placed above the quality of medical care. On the other hand, sometimes it may be advisable and even necessary for physicians to provide certain appliances or remedies without profit which patients cannot procure from other sources.'

"Your committee recommends that the following be substituted in lieu thereof:

'Dispensing of Drugs and Appliances by Physicians

'Sec. 8.—It is not unethical for a physician to prescribe or supply drugs, remedies, or appliances as long as there is no exploitation of the patient.' "

In reporting to the House the chairman of the Reference Committee explained that in the opinion of the Committee the Code of Ethics should be stated in broad principles rather than attempt to interpret principles in detail. In recommending the change in Section 8 the Committee emphasized that this section should be interpreted in line with Chapter I, Section 6, which reads: "The ethical physican, engaged in the practice of medicine, limits the sources of his income received from professional activities to service rendered the patient . . ."

Medical Practices Committee Report

The Reference Committee on Insurance and Medical Service, which considered two Board of Trustees reports on the Report of the Committee on Medical Practices, recommended endorsement of the Board's principal conclusions and recommendations. The House of Delegates, however, adopted a substitute motion postponing action until next December. The motion also called for distribution of the entire report of the Committee on Medical Practices to all delegates, so that they can study it carefully before the 1955 Clinical Meeting in Boston.

Internship Approval Programs

The House adopted the following statement presented by the Reference Committee on Medical Education and Hospitals:

"Your Committee has reviewed the report of the Council on Medical Education and Hospitals

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which includes a summary of the reports previously made to the House of Delegates by the Ad Hoc Committee on Internships and are in agreement with the Council that these conclusions and recommendations are eminently sound and that they should be incorporated into the principles and policies employed by the Council in the conduct of its internship approval programs including subsequent revisions of the Essentials of an Approved Internship.

"Your Committee wishes specifically to reaffirm the following recommendations of the Ad Hoc Committee on Internships:

"(1) That a continuing study be made as to what should be the content of an internship; what constitutes sound clinical experience during the internship year.

"(2) That the 'one-fourth rule' be adopted: Any internship program that in two successive years does not obtain one-fourth of its stated complement be disapproved for intern training. It was pointed out to your Committee in the hearings that statistical data compiled for a period of two years indicated that enforcement of this rule would have displaced only a few interns."

Hospital Accreditation

The same reference committee considered six resolutions on hospital accreditation and presented the following statement which was adopted by the House:

"Your Reference Committee has reviewed all these resolutions which in principle are similar and apparently reflect a widespread dissatisfaction with the present functioning of the Joint Commission on the Accreditation of Hospitals, possibly from bilateral misunderstanding. Therefore, your Reference Committee recommends that the Speaker of the House of Delegates be requested to appoint a special committee to review the functions of the Joint Commission on the Accreditation of Hospitals to consist of seven members, none of whom shall be members of the Council on Medical Education and Hospitals or the Joint Commission on the Accreditation of Hospitals. This special committee should be instructed to make an independent study or survey and report its findings and recommendations to the House of Delegates at the next annual meeting. All physicians and hospitals are urged to pass on to this special committee any observations or suggestions concerning the functioning of the Joint Commission on the Accreditation of Hospitals."

Polio Vaccine

The House passed three resolutions suggested by the Reference Committee on Hygiene, Public Health and Industrial Health in connection with discussion of the Salk polio vaccine and the introduction of new methods in the treatment or prevention of disease.

The first resolution reaffirmed "confidence in the established methods of announcing new and

Relax the best way
... pause for Coke

Time out for refreshment

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possibly beneficial methods in the treatment and prevention of disease" and also reaffirmed "the need for the presentation of reports on medical research before established scientific groups allowing free discussion and criticism, and the publication of such reports, including methods employed and data acquired on which the results and conclusions are based, in recognized scientific publications."

The second resolution included the following policy statements:

"Resolved, That the American Medical Association go on record as disapproving the purchase and distribution of the Salk polio vaccine by any agency of the federal government except for those unable to procure it for themselves and that such necessary federal funds therefor be allocated to the various proper state agencies for such purpose; and be it further

"Resolved, That the American Medical Association urge the Congress of the United States to allow the Salk polio vaccine to be produced, distributed and administered in accordance with past procedures on any new drug or vaccine."

The third resolution commended Dr. Salk as follows:

"Whereas, The physicians of this country recognize the great scientific achievement in isolating and perfecting a vaccine for the prevention of poliomyelitis by Dr. Jonas Salk; and

"Whereas, This vaccine is now being used to prevent poliomyelitis among many of our children; therefore be it

"Resolved, That the House of Delegates express its profound gratitude to Dr. Salk and its admiration for his monumental contribution to medical science."

Miscellaneous Actions

Among a large number of actions on a wide variety of subjects, the House of Delegates also:

Commended the "Medic" television program;

Reaffirmed its previous recommendation that the United States withdraw from the International Labor Organization;

Approved the Headquarters Survey Report, which included the statement that "the only public relations program of any permanent value is the private and public relations of the individual doctor";

Expressed regret that the Hoover Commission saw fit to alter or eliminate some of the recommendations of its Medical Task Force;

Reaffirmed its opposition to extension of the Doctor Draft Law;

Recommended the creation of an A.M.A. Committee on Geriatrics;

Warned against the danger embodied in state legislative proposals designed to restrict the entire field of visual care to the profession of optometry.

Opening Session

Principal addresses at the Monday opening

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Leo Brewington Ralph Rauscher

session of the House of Delegates were given by Dr. Walter B. Martin of Norfolk, Va., retiring A.M.A. President, and Dr. Elmer Hess of Erie, Pa., then President-Elect. Dr. Martin declared that the basic philosophy of medicine has not changed and "our obligation is to bring the best that medicine can offer to the individual patient." Dr. Hess said that the nation's physicians must become leaders in a campaign to "overcome the ravages of mental illness" as well as in an "intensive campaign to eliminate the needless bloodshed" of traffic accidents.

Inaugural Program

"Medicine's Proclamation of Faith" was the theme of the Tuesday evening inaugural program, which was broadcast nationwide by the ABC Radio Network. Dr. Hess, in his inaugural address, said that "unless we are willing to give of ourselves and our faith, our science will avail us little." Dr. Norman Vincent Peale, eminent clergyman who was guest speaker on the inaugural program, pointed out that "the drawing together of medicine and religion is a step in helping man toward proper use of his God-given potentials and qualifications."

Election of Officers

The following officers were elected at the closing session, in addition to Dr. Murray, the new President-Elect:

Dr. Millard D. Hill, Raleigh, N. C., Vice President; Dr. George F. Lull, Chicago, Secretary; Dr. J. J. Moore, Chicago, Treasurer; Dr. E. Vincent Askey, Los Angeles, Speaker of the House of Delegates, and Dr. Louis M. Orr, Orlando, Fla., Vice Speaker.

Dr. Gunnar Gundersen, La Crosse, Wis., was named chairman of the Board of Trustees to succeed Dr. Murray. Dr. James R. Reuling, Bayside, N. Y., was elected to fill Dr. Murray's term on the Board. Re-elected as Trustees were Dr. L. W. Larson, Bismarck, N. D., and Dr. T. P. Murdock, Meriden, Conn.

Dr. Louis A. Buie, Rochester, Minn., was named by Dr. Hess to succeed himself on the Judicial Council. Elected to the Council on Medical Education and Hospitals were Dr. Harlan English, Danville, Ill., and Dr. James M. Faulkner, Boston, the latter succeeding himself. Re-elected to the Council on Medical Service was Dr. H. B. Mulholland, Charlottesville, Va. Elected to the same Council were Dr. A. C. Scott, Temple, Tex., and Dr. R. B. Chrisman, Jr., replacing Dr. Orr.

Dr. B. E. Pickett, Sr., Carrizo Springs, Tex., was re-elected to the Council on Constitution and By-Laws, and Dr. Warren Furey was named to the same Council to replace Dr. James Stevenson, Tulsa, Okla.

GEORGE F. LULL,
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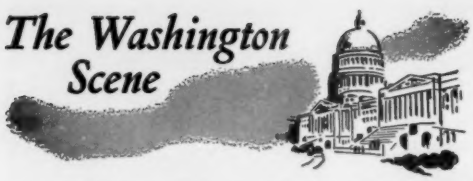
The Washington Scene



A monthly news summary from the nation's capital by the Washington Office of the A.M.A.

This Congress appears to have established a record for the introduction of medical legislation —but unless something unusual happens, and happens fast, there will be no record set for laws passed.

With the summer well along, and tentative adjournment just a few weeks off, Congress had not yet revived its interest in medical bills. Most of the measures that were offered in January and February, to the accompaniment of hopeful speeches by their sponsors, have been allowed to lie undisturbed in committee files. In some cases hearings were held, where persons and organizations vitally interested could give enthusiastic testimony. Very few bills, indeed, got farther than that in the first six months of the session.

One reason is the close balance in Congress, and the reluctance of either party to get behind bills offered by the other, and which might have appeal to the public in the 1956 election year. Another is worry over putting the Federal Government still deeper into the red in a year of prosperity, if not of boom.

Also, key committees for weeks were preoccupied with various bills on Salk vaccine, its control and its cost—weeks when the committees otherwise might have worked on, and possibly reported out, other less controversial health bills. A specific example is the Senate Labor and Welfare Committee. This committee was about ready to report out a House-passed bill for a national survey of mental health problems when it found itself deeply mired in the Salk situation. The mental health bill still is likely to be enacted, but the long delay didn't help much.

Another bill, early in the session regarded as about certain of enactment, calls for the establishment of a voluntary, contributory system of health insurance for federal civilian employees. After a year's study of the complications involved, a special task force prepared and made public the administration's program in January. The expectation was that a bill to carry out the plan would be offered in a few weeks at the most, and would be passed in a few months.

But it didn't work out that way. The administration decided that it couldn't press for these medical benefits (U. S. would pay about one-third of insurance premiums) until the extent of a general U. S. pay raise had been fixed by Congress. So it was June before this U. S. employee health insurance bill was even sent to Congress, and then the administration was in no rush to have it passed.

Troubles also beset the Defense Department's bill to extend the doctor draft act another two years. Although the extension was strongly opposed by both the American Medical Association and the American Dental Association, the House Armed Services Committee accepted the Defense Department's arguments and voted out the bill, 24 to 0.

Ordinarily such a committee vote would have sent the bill sailing on through the House and to the Senate. But not this time. Chairman Howard Smith (D., Va.) of the House Rules Committee lectured the Armed Services Committee and the Defense Department for not making an effort to solve the doctor problem by some other means. There was, consequently, a delay before floor action—not fatal, but a delay.

Some bills, once considered important, were effectively ignored by Congress. One was the Eisenhower-Hobby plan for reinsurance of health insurance groups, defeated last year. The administration tenaciously defended it, but the committees weren't enough impressed to schedule hearings during the first six months of the session.

The administration bill for federal guarantee of construction loans for hospitals and clinics stirred some Capitol Hill interest but no hearings have been held. Then came all the bills on polio vaccine, and this measure also was put on the shelf.

A bipartisan bill for U. S. grants for constructing and equipping medical research facilities traveled about the same course: hearings, a high degree of enthusiasm from medical researchers, confidence that the plan would go through—then no more action.

For a time Senator Hill (D., Ala.), the key Senator on health bills, was determined to put through his bill for federal aid for building medical schools. When hearings were held the bill did not appear to arouse opposition from any quarter, yet it was pushed farther and farther to the rear.

Because this is only the first session of the 84th Congress, none of these bills will be irretrievably lost even if not passed before adjournment. They hold whatever progress they have made, and many of them are certain to be important next year.

We must translate health into the attitudes and behavior patterns of the many if we are to have clean and healthy communities.—Henry F. Vaughan, Dr. P.H., Am. J. Pub. Health, Mar., 1955.

NEW- IN THE TOPICAL TREATMENT OF ALLERGIC SKIN CONDITIONS

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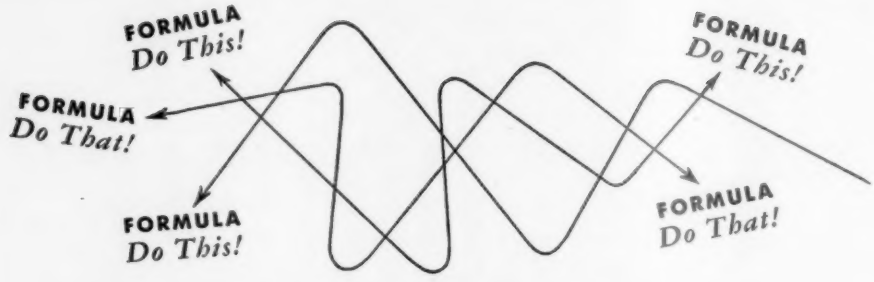

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It's delightfully simple to make your mothers regard you with a new found fondness.

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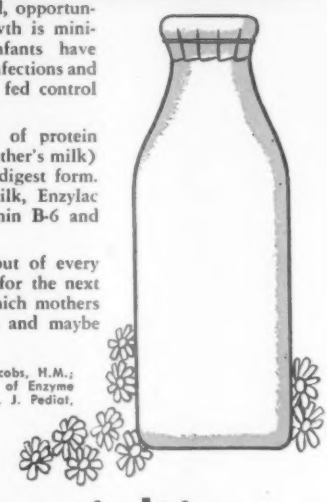
Suggestion — try one out of every four infants on Enzylac for the next six months. Then see which mothers wear the biggest smiles and maybe even send you posies.



* Blatt, M.L.; Harris, E.H.; Jacobs, H.M.; and Zeldes, M. An Evaluation of Enzyme treated Milk in Infant Feeding. J. Pediat. 17: (4): 435, 1940

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Obituaries

FRANCIS E. KIBLER

Dr. Francis E. Kibler of Colorado Springs died suddenly at his desk, May 11, at the age of 47.

Born February 19, 1908, in Pueblo, Dr. Kibler later went to school in Colorado Springs and to the University of Colorado in Boulder. In 1933 he received his M.D. degree from the University of Colorado. From 1933 to 1937 he interned and went through a surgical residency at the Ancher Hospital, St. Paul, Minnesota. For two years he practiced with the Austin Clinic in Austin, Minnesota, before moving to Colorado Springs in 1939. Since then until the time of his death he practiced in Colorado Springs with the exception of the period from 1942 to 1945 in which he was in the U. S. Navy Medical Corps, seeing active service in the South Pacific.

Dr. Kibler was a Diplomate of the American Board of Surgery. He was a member of the El Paso County Medical Society, the American Medical Association, and was active in the work of the American Cancer Society.

Surviving Dr. Kibler are his widow and a son and daughter.

WILLIAM W. HAGGART

Dr. William W. Haggart, Denver surgeon and leader in affairs of the American Cancer Society, died unexpectedly June 8, at St. Luke's Hospital of a heart attack. He was 57. Dr, Haggart suffered the attack while preparing to perform an operation at the hospital.

Born September 3, 1897, in Durango, Dr. Haggart did his pre-medical work at Stanford University at Palo Alto, California, and Harvard University. He was graduated from Harvard Medical School in 1922. He served his internship at Massachusetts General Hospital in Boston and came to Denver in 1925. He began specializing in surgery in 1930 and had been active in both local and national cancer organizations ever since. Dr. Haggart was one of the founders of the American Board of Surgery, and was a fellow of the American College of Surgeons. He had been Assistant Professor of Surgery at the University of Colorado Medical School since 1927. Dr. Haggart was a member of the medical staffs of St. Luke's and Children's Hospitals, and was a visiting surgeon at Denver General Hospital.

He was one of the founders of the Colorado Division of the American Cancer Society. For the past twenty-five years he served as chairman of the Division's Medical and Scientific Committee. Dr. Haggart was a member of the American Medical Association, the Colorado State Medical Society and the Denver Medical Society. He was Past President of the Denver Medical Society and for many years had been active in committee work of the local and state societies.

Surviving are his wife, Ruth, whom he married in Denver in 1925; a son, John, of Whittier, California; and two brothers, Dr. G. E. Haggart of Boston and John D. Haggart of New York City.

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in rheumatoid arthritis
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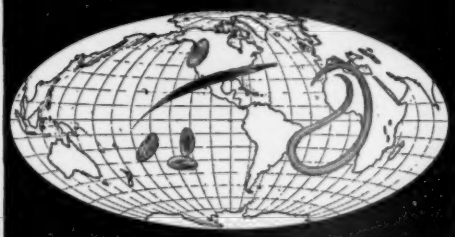

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GEORGE H. LEE

Dr. Lee, widely known Denver surgeon, died Tuesday, May 31, at his home after an illness of four years. He was 77 years old.

Dr. Lee was born October 25, 1877, in Wortham, Texas, and came to Denver in 1900. He married Anna Dursilla McColley here in 1914. He did his pre-medical work at Trinity College, San Antonio, Texas, and Cumberland University, Lebanon, Texas. He received his medical degree from Denver and Gross College of Medicine. After interning at St. Anthony's Hospital, he served on the general surgical staff from 1917 to 1955. Dr. Lee was a member of the American Medical Association, the Colorado State Medical Society, and the Denver County Medical Society.

Surviving in addition to his wife is a sister, Miss Elizabeth Lee of Denver.

WANT TO WRITE A BOOK?

Any way you look at Wyoming, even considering the fact that our great distances are interspersed with beautiful mountains, forests, lakes and streams, as well as grassy plains and desert, we are still a rural community. Dr. Wallace Marshall of Two Rivers, Wisconsin, has written to the Wyoming State Medical Society for a list of possible contributors for a book on rural medical practice. Charles C. Thomas, publisher of Springfield, Illinois, will publish this unusual volume. They are desirous of securing details of how you, as a country doctor, actually handle medical problems in your own community. If you would like to make a contribution to this type of medical literature (and you will be credited for it) you may contact Dr. Wallace Marshall at the Bank of Two Rivers Building, Two Rivers, Wisconsin.

Wyoming's Annual Meeting

Dr. B. J Sullivan presided in his home town over the annual meeting of the Wyoming State Medical Society which was attended by a total of 208 people—94 members, 68 wives, and 46 exhibitors and guests. The meeting began on Sunday evening, June 12, and ended late Wednesday afternoon, June 15.

Dr. Russell I. Williams of Cheyenne is the new President and he is making plans for the next annual meeting which will be held at the new Jackson Lake Lodge at Moran in the last few days of June, 1956. The other new officers include Dr. Joseph S. Hellewell, Evanston, President-Elect; Dr. Harlan B. Anderson, Casper, Vice President; Dr. Benjamin Gitlitz, Thermopolis, Secretary; and Dr. Carleton D. Anton, Sheridan, Treasurer. New Councillors were elected as fol-

lows: for a one-year term, Dr. Nels A. Vicklund, Thermopolis; for regular three-year terms, Dr. William A. Hinrichs of Douglas and Dr. L. B. Morgan of Torrington.

This meeting was enjoyed by all who attended and the scientific presentations were particularly outstanding. The business sessions of the Society accomplished much in good harmony under the guidance of the President.

Woman's Auxiliary

WYOMING WOMAN'S AUXILIARY HELD MEETING

The Woman's Auxiliary to the Wyoming State Medical Society met in Laramie, June 13, and were presided over by their President, Mrs. Franklin D. Yoder of Cheyenne. Wyoming was honored by a visit of the President of the Woman's Auxiliary to the American Medical Association, Mrs. Mason G. Lawson of Little Rock, Arkansas. This was her first official visit to a state since becoming National President. Mrs. Lawrence Barrett of Casper is the new President of the Woman's Auxiliary, and the President-Elect is Mrs. Albert T. Sudman of Green River.

AMERICAN BOARD OF OBSTETRICS AN GYNECOLOGY, INC.

The Part II Examinations of the American Board of Obstetrics and Gynecology were held May 12 through 20 at the Edgewater Beach Hotel in Chicago, Illinois. Three hundred eighty-seven candidates were examined.

After twenty-five years of continuous service, Dr. Walter T. Dannreuther was succeeded as President of the Board by Dr. F. Bayard Carter. Dr. Dannreuther will continue with the Board as a member of the Executive Committee.

After many years of faithful service as a Director, the resignation of Dr. Willard R. Cooke was accepted with regret and Dr. Conrad G. Collins of New Orleans was elected to fill his unexpired term.

Applications for certification for the 1956 Part I Examinations are now being accepted. Candidates are urged to make such application as early as possible, and before October 1, 1955. Office of the Secretary, Robert L. Faulkner, M.D., 2105 Adelbert Road, Cleveland 6, Ohio.

It is important to emphasize in public health practice that the control of bovine tuberculosis is also dependent on the prevention of contact between noninfected animals and persons with open infections.—James H. Steele, D.V.M., M.P.H., Pub. Health Rep., Nov., 1954.

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against PINWORMS

In clinical trials, over 80% of cases have been cleared of the infection by one course of treatment with 'Antepar.'

Bumbalo, T. S., Gustina, F. J., and Oleksiak, R. E.: J. Pediat. 44:386, 1954.

White, R. H. R., and Standen, O. D.: Brit. M. J. 2:755, 1953.

against ROUNDWORMS

"Ninety per cent of the children passed all of their ascarides . . ."

Brown, H. W.: J. Pediat. 45:419, 1954.

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Obituaries

JOHN LESLIE CAVANAUGH

Dr. John Leslie Cavanaugh, 58, Carlsbad, New Mexico, died on April 10, 1955. He was born in Ontario, Canada, in 1897 and was graduated from the University of Toronto Faculty of Medicine in 1923. Dr. Cavanaugh came to New Mexico in 1934 and settled in Carlsbad. He was a specialist in EENT.

He was a member of the Eddy County Medical Society, the New Mexico Medical Society and American Medical Association.

W. HENRY DANE

Dr. W. Henry Dane, 60, Albuquerque, New Mexico, died of coronary thrombosis in London, England, May 18, 1955, while enroute to Geneva, Switzerland, to participate in the International College of Surgeons Convention.

Dr. Dane was born in Warsaw, Poland, and was graduated from Warsaw University with an M.D. degree in 1922. He came to the United States in 1943 and served on the staff of several New York hospitals until 1951, at which time he moved to Albuquerque, New Mexico, and assumed the position of Chief of the Eye-Ear-Nose-Throat Section of the Veterans Administration Hospital, Albuquerque.

Dr. Dane was a member of the Bernalillo County Medical Society, the New Mexico Medical Society and of the American Medical Association.

New Officers of New Mexico Medical Society

This photograph was taken in Albuquerque immediately after the House of Delegates had elected them at the joint meeting of the New Mexico Medical Society and the Rocky Mountain Medical Conference. Standing, left to right, Drs. John F. Conway, Clovis, retiring President; Samuel R. Ziegler, Espanola, Vice President, and Lewis M. Overton, Albuquerque, re-elected Secretary-Treasurer. Seated, left, Dr. Earl L. Malone, Roswell, the new President, and Dr. Stuart W. Adler, Albuquerque, President-Elect.

Utah

News Briefs

Thomas F. Keyes, M.D., of Salt Lake City, was elected an active member of the American Bronco-Esophagological Association at a recent meeting in Hollywood, Florida. Dr. Keyes is a thoracic surgeon and has been practicing in Salt Lake City since 1951.

* * *

Pharmacists and druggists from throughout Utah were in attendance at Vernal early last month for the 63rd annual convention of the Utah Pharmaceutical Association. Dr. David L. Hiner, Dean of the University of Utah College of Pharmacy, was one of the principal speakers. C. L. Prisk of Salt Lake, President of the Association, presided at the meetings. J. B. Heinz of Salt Lake, President of the American Pharmaceutical Association, gave one of the principal addresses of the meeting on the recent advances in treatment of diseases with hydro-crotisome.

* * *

George Wood, Executive Vice President of Peralta Hospital, Oakland, California, tells this story:

A lady was brought to the hospital for an emergency appendectomy. She remained in the hospital three days. The hospital bill was $52.50 for room, etc., $60 for surgery, $10.50 for laboratory, $5.00 for drugs and miscellaneous. Total, $128.00. The husband was somewhat disturbed when he came to settle the bill. "This bill is terrible," he said. "How can you expect a working man like me to pay $128.00 for three days' care?"

The cashier asked if the service his wife had received was satisfactory. He answered, "Yes, the service was good, the room was pleasant, the food was excellent. The only complaint is about the charges." Noticing from the record that the man was a plumber the young lady asked what it would cost the hospital to be provided with continuous plumber service. The plumber stated that their rates were $22.00 for an eight-hour day. When asked about the two night shifts, he answered that they were double or $44.00 a day. Total cost for continuous 24-hour plumber service would be $110.00—three days $330.00!!!

* * *

Orthopedic clinics are being conducted in connection with the L.D.S. Primary Children's Hospital at various times during the year and in different cities throughout the state to assist the children with orthopedic ailments. A recent

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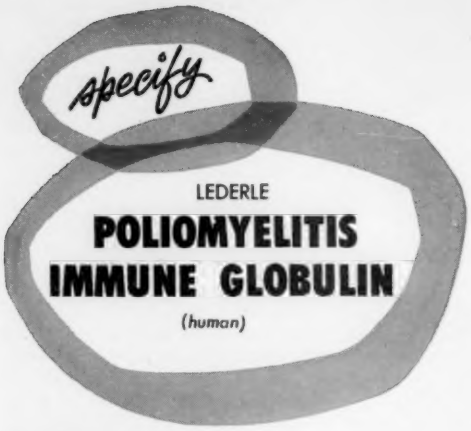

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clinic was held in Logan on May 23 at the L.D.S. Hospital. Another follow-up clinic will be held in September.

* * *

R. N. Malouf, M.D., who has been practicing in Richfield, Utah, for nine years, on June 1 accepted an opportunity to enter practice at Logan, Utah. G. A. Buchanan, M.D., and his wife, Esther Buchanan, M.D., are now in Richfield to take up the practice of Dr. Malouf.

* * *

Pageant Magazine recently carried an interesting article regarding the location of a doctor in Salina, Utah. This article adequately illustrates the type of cooperation that is sometimes necessary to obtain a physician for a rural community. It points out that the Utah State Medical Association and a community committee did much in securing needed medical help for this area. The Association office is in receipt of the following letter from Aubrey D. Gates, Field Director of the Council on Rural Health of the A.M.A.:

"It is an excellent article and it is illustrations of this type that will be helpful to us throughout the country in pushing the program which we believe will achieve the results we seek in locating medical men in rural areas. It is a fine piece of publicity and we are delighted to have it available as an illustration of what a community can do."

* * *

Members of the Central Utah Medical Society held their regular meeting May 5 in Richfield. Rae E. Noyes, M.D., Association President, presided and Neal Huckleberry, M.D., of Salt Lake City, spoke on the subject, "Urotgne Emergencies."

* * *

Two Utah men, one from Ogden, have taken the first electronic microscope photographs of gelatinous particles called colloids. The new clue in the study of kidney diseases was revealed by Drs. George M. Fister, Ogden physician, and George W. Cochran of Utah State Agricultural College. Speaking to the American Urological Association in Los Angeles, California, the two Utah men said that, for the first time, they have made photographs of the submicroscopic particles. Dr. Fister said there are ten times as many colloids in the fluid of a person suffering from kidney stones as in a normal person.

UTAH TO ESTABLISH "EYE BANK"

An "eye bank," the first of its kind in Utah, is being established by Salt Lake County General Hospital to provide corneal transplants to restore the sight of persons suffering certain types of eye injuries.

Kenneth A. Rindflesh, hospital director, said the service would be available to patients of all physicians rather than just those of the hospital.

The corneas are removed from the eyes of persons who have recently died and can be transplanted to replace those of living persons.

They must be transplanted within a few days after being removed, however, and the hospital thus will only obtain them on the request of a physician. It does not plan to keep a supply on hand.

The cornea is the transparent outer portion of the eyeball. Transplanting of it has been successful in a large number of cases.

Obituary

VINTON J. CLARK

Vinton J. Clark, M.D., 78, former Salt Lake physician and surgeon and Masonic leader, died Sunday, June 12, 1955, at his residence in Salt Lake City.

Dr. Clark was a practicing physician in Salt Lake City from 1916 until he retired in 1943. He was formerly on the staff at St. Mark's Hospital and had served as President of Salt Lake County Medical Society and the Utah Medical Association.

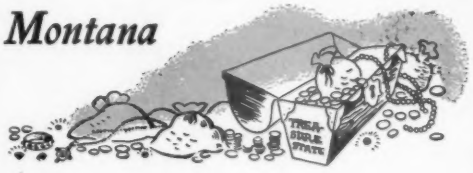
Born January 5, 1877, in Harvard, Iowa, he was a son of Learnerd and Eliza Mendenhall Clark. He was educated in the Harvard, Iowa, schools.

In 1899, Dr. Clark was graduated from Simpson College at Indianola, Iowa.

He received his M.A. degree at Rush Medical College, Des Moines, Iowa, in 1915, and earned his medical degree at Chicago University.

On October 21, 1903, he married Maud Elizabeth Anthony in Des Moines, Iowa. Mrs. Clark died in 1946.

Montana



Obituary

FERDINAND R. SCHEMM

Dr. Ferdinand Ripley Schemm died in St. Louis, May 16, 1955. He was a graduate of the University of Michigan Medical School, 1925. After completing his internship at the University Hospital, Ann Arbor, in 1927, he engaged in the general practice of medicine at Bay City, Michigan. In 1930 he became an instructor of medicine at the University of Michigan Medical School.

Dr. Schemm moved to Montana in 1933 and became a member of the staff of the Great Falls Clinic. He was primarily interested in cardiovascular-renal disease and its allied conditions and contributed on a number of occasions to scientific literature. Dr. Schemm was one of the incorporators of the Western Foundation for Clinical Research which was established in Great Falls in August, 1947, by a number of citizens as a non-profit corporation for the support of medical research. As a result of one of the research projects of this foundation, Dr. Schemm was invited to address a meeting of the International Congress of Cardiologists in Paris during 1950. Dr. Schemm was fellow of the American College of Physicians and participated actively in the affairs of the Montana Medical Association.

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Hospital Association To Meet in October

The Colorado Hospital Association will hold its 31st Annual Meeting at the Cosmopolitan Hotel on Tuesday and Wednesday, October 25 and 26, 1955.

W. A. Dubach, Chairman of the Program Committee, announces that four major subjects will be included and will make the general theme of the two-day program. These subjects will be: "The Growth and Changing Role of Hospitals—Impact on Hospitals of New Methods of Treatment—The Chronically Ill and the Care of the Aged—What Plans Should Hospitals Lay for Them?"

NEW FILM ON RHEUMATIC FEVER

A new health education film—"Stop Rheumatic Fever"—has just been added to the A.M.A.'s Motion Picture Library. The film was developed to impress upon parents, teachers and the public the fact that rheumatic fever can be prevented by early diagnosis and treatment of streptococcal infections. This 12-minute black and white sound film, employing symbolic animation to emphasize the point, is suitable for parent groups, service clubs, public health nurses and high school students.

LATEST WORD ON MULTIPLE SCREENING PROJECTS

Up-to-date information on multiple screening programs is incorporated in a new booklet from A.M.A.'s Council on Medical Service. Containing definitions, basic principles and statements of both the advantages and disadvantages of such programs, the booklet also includes detailed descriptions of thirty-three multiple screening surveys carried on in fourteen states and the District of Columbia. The surveys reported on range from small operations in a single company to statewide programs.

DIGEST OF RURAL HEALTH MEETING

Copies of the digest of the 10th National Conference on Rural Health may be secured from the A.M.A.'s Council on Rural Health. This digest—following the Conference theme of "Looking Both Ways" at various rural health problems—contains reports of discussions held on such subjects as farm and home safety, family responsibility for health, utilizing our present health and medical care facilities to the fullest extent. State and county rural health chairmen will find this booklet of particular value in helping to develop new society projects in their areas.

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GYNECOLOGY—Vaginal Approach to Pelvic Surgery, One Week, November 7. Three-Week Combined Course Gynecology and Obstetrics, September 12.

MEDICINE—Two-Week Course September 26. Electrocardiography and Heart Disease, Two Weeks, October 10. Gastroscopy, One Week Advanced Course, September 12. Gastroenterology, Two Weeks, October 24. Dermatology, Two Weeks, October 17.

RADIOLOGY—Clinical Diagnostic Course, Two Weeks, by appointment. Clinical Uses of Radioisotopes, Two Weeks, October 10.

PEDIATRICS—Clinical Course, Two Weeks, by appointment. Pediatric Cardiology, One Week, October 10 and 17.

UROLOGY—Two-Week Course October 10.

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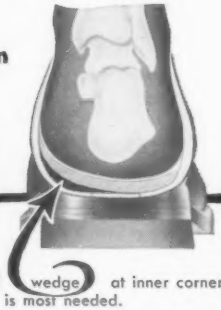

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A wholesome and instructive medical who-dun-it transcription series is available from the A.M.A.'s Bureau of Health Education for airing over local radio stations. Entitled, "Dr. Tim, Detective," this series relates some of the novel experiences which the doctor and his teen-age pals—Sandy and Jill—have solving mysteries related to health. The series is a national adaptation of a series of the same title originated seven years ago by the Colorado State Medical Society.

Written and produced by the Rocky Mountain Radio Council under the supervision of the Bureau, this series is particularly suitable for those radio listening hours directed to the small fry. Medical societies sponsoring "Dr. Tim" transcriptions might wish to inform the local P.T.A. of the hour the programs will be aired.

Subjects included in the 13-program series: diabetes, rabies, hearing, dope peddling, hookworm, appendicitis, asthma and allergies, anesthesia, nursing care, blood and fractions, rheumatic heart disease, Rocky Mountain spotted fever, and patent medicines.

A.M.A. SURVEYS COUNTY
MEDICAL SOCIETIES

To find out what county medical societies throughout the country are doing and to help them develop new public service programs, the A.M.A.'s Council on Medical Service currently is distributing questionnaires to officers of the 1,911 county and district medical societies in the U. S. The most complete of its type ever undertaken, this survey covers all major areas of society interest—including meetings, committees, programs and activities, insurance programs, dues, office facilities, and personnel. Since this is the only way that the Association can keep abreast of society activities, the Council hopes that all questionnaires will be returned as soon as possible. The information gleaned from these reports will be invaluable aids to societies seeking assistance in expanding their activities and will help the Council's staff increase its ability to be of service to society officers and members. This year's survey is being conducted in cooperation with the Department of Public Relations.

It seems probable that one of the real values of tuberculosis case detection through chest x-ray surveys is a saving in lives as the result of treatment early in the course of the disease. This value is in addition to the prevention of spread of infection to others that must have occurred as the result of the discovery and isolation of infectious tuberculosis before it ordinarily would have been brought to light.—Robert J. Anderson, M.D., Philip E. Enterline, M.A., Frank J. Hill, M.D., and Jean Roberts, M.P.H., Pub. Health Rep., Nov., 1954.

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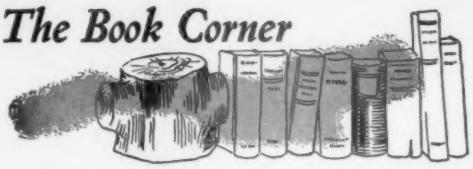

New Books Received

New books received are acknowledged in this section. From these, selections will be made for reviews in the interests of the readers. Books here listed will be available for lending from the Denver Medical Library soon after publication.

Physicians' Office Attendants Manual: Section for office work by Henry B. Gotten, M.D., Associate Professor of Medicine, University of Tennessee, Memphis, Tennessee. Section for laboratory work by Douglas H. Sprunt, M.D., Professor of Pathology, University of Tennessee, Memphis, Tennessee. Needed in every doctor's office. This book was designed to assist office help in mastering the multitude of details that are incident to a professional practice. Springfield, Illinois: C. C. Thomas, c1955, 93 p., illus. Price: $3.75.

Breast Cancer and Its Diagnosis and Treatment: By Edward F. Lewison, B.S., M.D., F.A.C.S., Assistant Professor of Surgery, Johns Hopkins University School of Medicine; Surgeon, Johns Hopkins Hospital; Surgeon, Out-Patient Department, Breast Clinic, Division of Tumor Clinic, Johns Hopkins Hospital. Baltimore: Williams & Wilkins Co., 1955. 478 p., illus., bibliog. Price: $15.00.

Obstetrics: By J. P. Greenhill. 11th ed. 1,170 illustrations on 910 figures, 144 in color. Philadelphia: W. B. Saunders, 1955. 1,088 p., bibliog. Price: $14.00.

The Care of Your Skin: By Herbert Lawerence, M.D. Acne affects the development of personality as well as the physical appearance of most young men and women. This book tells in a simple and helpful manner what can be done to meet this source of considerable unhappiness. With illustrations. Boston and Toronto: Little, Brown and Company, c1955, 95 p. Price: $2.50.

The Behavior of Pulmonary Tuberculous Lesions, a Pathological Study: By E. N. Medler, Chief Pathologist, Division of Tuberculosis, New York State Department of Health, Hermann M. Biggs Memorial Hospital, Ithaca, New York, and Lecturer in Pathology, Chest Service, Bellevue Hospital College of Physicians and Surgeons, Columbia University, New York, New York. American Review of Tuberculosis, March, 1955. 244 p., illus., and bibliog.

Should the Patient Know the Truth? A Response of Physicians, Nurses, Clergymen, and Lawyers: Edited by Samuel Standard, M.D., and Helmuth Nathan, M.D. The book's question embraces a "doctor's dilemma" infinitely more common than Shaw's. 159 p. Price: $3.00.

Book Reviews

Emergencies in Medical Practice: Edited by C. Allan Birch, M.D., F.R.C.P., Physician, Chase Farm Hospital, Enfield. With 143 illustrations, 9 in color. 4th ed. Edinburgh and London: E. & S. Livingstone Ltd., 1954. 610 p. Price: $7.00.

This book deals with emergencies of all degree and covering the broad field from acute poisoning to "medico-legal and other non-clinical emergencies." A moderate amount of the material is that which would be found in a standard text of medicine.

Since this is a British book, there are terms and proprietary names which are unfamiliar, but there is a glossary included. Some rather unusual chapters include those on the contents of an emergency bag, medical emergencies at sea, and medical emergencies in the air. The chapter dealing with "Emergencies in Industrial Medicine" is very timely although brief.

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Synopsis of Medicine: By Sir Henry Letheby Tidy, K.B.E., M.A., M.D., B.Ch.(Oxon.), F.R.C.P. (Lond.), Extra Physician to H.M. The Queen; Consulting Physician to St. Thomas's Hospital; Hon. Major-General, lately Consulting Physician to the British Army. 10th ed., rev. and enl. Baltimore: Williams & Wilkin Co., 1954. 1,253 p. Price: $7.50.

This is the tenth edition since 1920 for this British book, which is truly a "Synopsis." The general plan is to present each disease in abbreviated general outline, usually including epidemiology, etiology, morbid anatomy, symptoms, findings, complications, diagnosis, prognosis, prophylaxis and treatment. There are no bibliographies or illustrations.

W. GRAYBURN DAVIS, M.D.

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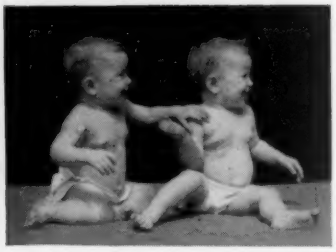

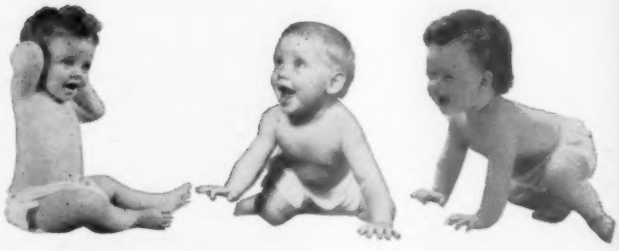

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(1) Jeans, P. C., in A. M. A. Handbook of Nutrition, ed. 2, Philadelphia, Blakiston, 1951, pp. 275-278.

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